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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3392

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Lys Leu Arg Arg Gly Lys Pro Gly Phe Gln Gly Gln Ser Ser Ser Gln
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Ala Gln Gln Val Ile Lys Arg Asn Leu Arg Ser Arg Ala Lys Gly Ala

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				660										670		
Tyr	Ile	Cys	Thr	Tyr	Cys	Gly	Lys	Ala	Tyr	Arg	Phe	Leu	Ser	Gln	Phe	
		675					680					685				
Lys	Gln	His	Ile	Lys	Met	His	Pro	Gly	Glu	Lys	Pro	Leu	Gly	Val	Asn	
		690				695						700				
Lys	Val	Ala	Lys	Pro	Lys	Glu	His	Ala	Pro	Leu	Ala	Ser	Pro	Val	Glu	
705					710					715					720	
Asn	Lys	Glu	Val	Tyr	Gln	Cys	Arg	Leu	Cys	Asn	Ala	Lys	Leu	Ser	Ser	
				725				730						735		
Leu	Leu	Glu	Gln	Gly	Ser	His	Glu	Arg	Leu	Cys	Arg	Asn	Ala	Val		
			740					745					750			
Cys	Pro	Tyr	Cys	Ser	Leu	Arg	Phe	Phe	Ser	Pro	Glu	Leu	Lys	Gln	Glu	
		755					760					765				
His	Glu	Ser	Lys	Cys	Glu	Tyr	Lys	Lys	Leu	Thr	Cys	Leu	Glu	Cys	Met	
	770					775					780					
Arg	Thr	Phe	Lys	Ser	Ser	Phe	Ser	Ile	Trp	Arg	His	Gln	Val	Glu	Val	
785					790					795					800	
His	Asn	Gln	Asn	Asn	Met	Ala	Pro	Thr	Glu	Asn	Phe	Ser	Leu	Pro	Val	
				805					810					815		
Leu	Asp	His	Asn	Gly	Asp	Val	Thr	Gly	Ser	Ser	Arg	Pro	Gln	Ser	Gln	
			820					825					830			
Pro	Glu	Pro	Asn	Lys	Val	Asn	His	Ile	Val	Thr	Thr	Lys	Asp	Asp	Asn	
		835					840					845				
Val	Phe	Ser	Asp	Ser	Ser	Glu	Gln	Val	Asn	Phe	Asp	Ser	Glu	Asp	Ser	
	850					855				860						
Ser	Cys	Leu	Pro	Glu	Asp	Leu	Ser	Leu	Ser	Lys	Gln	Leu	Lys	Ile	Gln	
865					870					875					880	
Val	Lys	Glu	Glu	Pro	Val	Glu	Glu	Ala	Glu	Glu	Glu	Ala	Pro	Glu	Ala	
				885					890					895		
Ser	Thr	Ala	Pro	Lys	Glu	Ala	Gly	Pro	Ser	Lys	Glu	Ala	Ser	Leu	Trp	
			900					905					910			
Pro	Cys	Glu	Lys	Cys	Gly	Lys	Met	Phe	Thr	Val	His	Lys	Gln	Leu	Glu	
		915					920					925				
Arg	His	Gln	Glu	Leu	Leu	Cys	Ser	Val	Lys	Pro	Phe	Ile	Cys	His	Val	
	930					935					940					
Cys	Asn	Lys	Ala	Phe	Arg	Thr	Asn	Phe	Arg	Leu	Trp	Ser	His	Phe	Gln	
945					950					955					960	
Ser	His	Met	Ser	Gln	Ala	Ser	Glu	Glu	Ser	Ala	His	Lys	Glu	Ser	Glu	
				965					970					975		
Val	Cys	Pro	Val	Pro	Thr	Asn	Ser	Pro	Ser	Pro	Pro	Pro	Leu	Pro	Pro	
			980					985					990			
Pro	Pro	Pro	Leu	Pro	Lys	Ile	Gln	Pro	Leu	Glu	Pro	Asp	Ser	Pro	Thr	
		995					1000					1005</				

<210> 3401  
<211> 579



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3401

gttgaaaata aggaaaagga cagcaatatg ccacactttc aaactttgca agctattgtt  
 60  
 tctcacttcc aaaagttatt tgatgtgcct tctttaaatg gagtctatcc ccgaatgaat  
 120  
 gaagtttata ctaggcttgg agaaatgaac aatgctgtga gaaacctcca agaactctta  
 180  
 gaattagata gttcatcttc attgtgtgtg ctagtaagca ctggttgaaa actctgtagg  
 240  
 ctgattaatg aagatgtgaa tgagcagggt atgcaggat taggacctga agacctccag  
 300  
 agcattatct acaaattgga agaacacgag gaatttttcc cagcatttca ggcatttact  
 360  
 aatgatctac ttgaaatcctt agaaattgat gactctggat gccattgtac ctgcagtaaa  
 420  
 gaaattaaaa gtactttcat actgaaaaca aatcaaatca tttttactgt gtaaattgta  
 480  
 ttcttaacat ttgtattttt gtaggattga tcttattttg agacaagggt tgtaaaatgt  
 540  
 atttgtcttc agaattcacc cctttcttag tattaggtc  
 579

&lt;210&gt; 3402

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3402

Met	Pro	His	Phe	Gln	Thr	Leu	Gln	Ala	Ile	Val	Ser	His	Phe	Gln	Lys
1				5					10					15	
Leu	Phe	Asp	Val	Pro	Ser	Leu	Asn	Gly	Val	Tyr	Pro	Arg	Met	Asn	Glu
		20						25					30		
Val	Tyr	Thr	Arg	Leu	Gly	Glu	Met	Asn	Asn	Ala	Val	Arg	Asn	Leu	Gln
		35				40						45			
Glu	Leu	Leu	Glu	Leu	Asp	Ser	Ser	Ser	Ser	Leu	Cys	Val	Leu	Val	Ser
	50				55						60				
Thr	Val	Gly	Lys	Leu	Cys	Arg	Leu	Ile	Asn	Glu	Asp	Val	Asn	Glu	Gln
65					70					75				80	
Val	Met	Gln	Val	Leu	Gly	Pro	Glu	Asp	Leu	Gln	Ser	Ile	Ile	Tyr	Lys
			85					90						95	
Leu	Glu	Glu	His	Glu	Glu	Phe	Phe	Pro	Ala	Phe	Gln	Ala	Phe	Thr	Asn
			100					105					110		
Asp	Leu	Leu	Glu	Ile	Leu	Glu	Ile	Asp	Asp	Ser	Gly	Cys	His	Cys	Thr
		115				120					125				
Cys	Ser	Lys	Glu	Ile	Lys	Ser	Thr	Phe	Ile	Leu	Lys	Thr	Asn	Gln	Ile
	130					135					140				
Ile	Phe	Thr	Val												
145															

&lt;210&gt; 3403

&lt;211&gt; 1696

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3403

aaaaacatca gtgtctgtgg gtagttagaa tcttcagttc ctgtgagcgt cggcgtcttc  
60  
tgggcctgtg gagtttcttg gacaggggcc gcggggctcc aggacggcgc ccttagcgac  
120  
accatggccc gaaatgcaga aaaggccatg acggccttag caagatttcg ccaggctcag  
180  
ctggaagagg gaaaagtga ggaacgaaga ccctttcttg cctcagaatg tactgaactg  
240  
cctaaagctg agaagtggag acgacagatc attggagaga tctctaaaaa agtggctcag  
300  
attcagaatg ctggtttagg tgaatttcga attcgtgacc tgaatgatga aattaacaag  
360  
ctgctaaggg agaaaggaca ctgggaggtc cggataaagg agctgggagg tcctgattat  
420  
ggaaaagttg gccctaaaat gctggatcat gaaggaaaag aagtcccagg aaaccgaggt  
480  
tacaagtact ttggagcagc aaaagatttg cctggtgtta gagagctgtt tgaaaaanga  
540  
acctcttcct cctcccagnn aaagacacgt gctgagctca tgaaggcaat cgattttgag  
600  
tactatgggt acctagatga agatgatggg gttattgtgc ctttgaaca ggaatatgaa  
660  
aagaaaactca gagccgagtt agtggaaaag tggaaagcag agagagaggc tcggctggca  
720  
agaggagaaa aggaagagga ggaggaagag gaggaagaga tcaacatcta tgcagtcacc  
780  
gaggaggagt cggacgagga aggcagccag gagaaggag gggacgacag ccagcagaag  
840  
ttcattgtct acgtccctgt tccctgcag caagagattg aggaggcact ggtgcgaagg  
900  
aagaaaatgg aactcctcca gaagtatgca agcgagacc tcgaggccca aagtgaagaa  
960  
gccagaaggc tcctggggta ttaggaccca gctggggctc tccttgaggt tcttccatcc  
1020  
cccagtggta cctcaggacc cagggctgca gacacaggct ggtgctgcaa gggctcctgc  
1080  
cccattctca gccttccttc cctctccttg tctcatgttg accggagggt aggggtctgt  
1140  
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1200  
ttattgtgga gtgtatacaa caggttgca actggctgcc tgtgtcttat tttgacttgc  
1260  
actgccattt tgaggggaga agaatacaatt agtggcaaac atttaaaaat gcaatttttt  
1320  
gcagaccaa gtataatttt aaaaaatgca aattttctaa aagacacatc tcttgaaaaa  
1380  
tgagatgatg tggccaggcg cagtggctca cgctgtaac ccagcactt tgggaggccg  
1440  
aggcgggagg gtcacgaggt caagagatgg agaccatcct ggccaacatg gtgaaacccc  
1500

atgtctacta aaaatacaaaa aaaattagct gggcgtagct gcatgcacct gtagtcccag  
 1560  
 ctgcttttggg aggctgagggc aggagaatca cttgaacccc cggaggtgga ggtttgagtg  
 1620  
 agcccagatc gtggccattg actccaagcc ttgggacaag tgggaacctc ttccccccaa  
 1680  
 aaaaaaaaaa aagttt  
 1696

<210> 3404

<211> 286

<212> PRT

<213> Homo sapiens

<400> 3404

Met	Ala	Arg	Asn	Ala	Glu	Lys	Ala	Met	Thr	Ala	Leu	Ala	Arg	Phe	Arg
1			5						10					15	
Gln	Ala	Gln	Leu	Glu	Glu	Gly	Lys	Val	Lys	Glu	Arg	Arg	Pro	Phe	Leu
		20						25					30		
Ala	Ser	Glu	Cys	Thr	Glu	Leu	Pro	Lys	Ala	Glu	Lys	Trp	Arg	Arg	Gln
		35					40					45			
Ile	Ile	Gly	Glu	Ile	Ser	Lys	Lys	Val	Ala	Gln	Ile	Gln	Asn	Ala	Gly
	50					55					60				
Leu	Gly	Glu	Phe	Arg	Ile	Arg	Asp	Leu	Asn	Asp	Glu	Ile	Asn	Lys	Leu
65					70				75					80	
Leu	Arg	Glu	Lys	Gly	His	Trp	Glu	Val	Arg	Ile	Lys	Glu	Leu	Gly	Gly
			85					90					95		
Pro	Asp	Tyr	Gly	Lys	Val	Gly	Pro	Lys	Met	Leu	Asp	His	Glu	Gly	Lys
			100					105					110		
Glu	Val	Pro	Gly	Asn	Arg	Gly	Tyr	Lys	Tyr	Phe	Gly	Ala	Ala	Lys	Asp
		115					120					125			
Leu	Pro	Gly	Val	Arg	Glu	Leu	Phe	Glu	Lys	Xaa	Thr	Ser	Ser	Ser	Ser
	130					135					140				
Gln	Xaa	Lys	Thr	Arg	Ala	Glu	Leu	Met	Lys	Ala	Ile	Asp	Phe	Glu	Tyr
145					150					155					160
Tyr	Gly	Tyr	Leu	Asp	Glu	Asp	Asp	Gly	Val	Ile	Val	Pro	Leu	Glu	Gln
			165					170						175	
Glu	Tyr	Glu	Lys	Lys	Leu	Arg	Ala	Glu	Leu	Val	Glu	Lys	Trp	Lys	Ala
		180						185					190		
Glu	Arg	Glu	Ala	Arg	Leu	Ala	Arg	Gly	Glu	Lys	Glu	Glu	Glu	Glu	Glu
		195					200					205			
Glu	Glu	Glu	Glu	Ile	Asn	Ile	Tyr	Ala	Val	Thr	Glu	Glu	Glu	Ser	Asp
	210					215					220				
Glu	Glu	Gly	Ser	Gln	Glu	Lys	Gly	Gly	Asp	Asp	Ser	Gln	Gln	Lys	Phe
225				230						235					240
Ile	Ala	His	Val	Pro	Val	Pro	Ser	Gln	Gln	Glu	Ile	Glu	Glu	Ala	Leu
			245					250						255	
Val	Arg	Arg	Lys	Lys	Met	Glu	Leu	Leu	Gln	Lys	Tyr	Ala	Ser	Glu	Thr
		260						265					270		
Leu	Gln	Ala	Gln	Ser	Glu	Glu	Ala	Arg	Arg	Leu	Leu	Gly	Tyr		
		275					280					285			

<210> 3405

<211> 402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3405

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gggtgggagg ccccttgca ggagaggctg gcgttctatc agacagcaat tgaaagcgcc
60
agacaagctg gagacagcgc caagatgcgg cgctacgacg gggggcttaa aacactggaa
120
aacctgctcg cctccatccg taagggaat gccattgacg aagcggacat cccgccgcca
180
gtggccatag gaaaaggccc ggcgccacg cctacctaca gccctgcacc caccagccg
240
gccctagaa tcgcgtcagc cccagagccc agggtcaccc tggagggacc ttctgccacc
300
gccccagcct catctccagg cttggctaag cccagatgc cccaggtcc ctgcagccct
360
ccctctggcc cagttgcaga gccgccagcg cgactacaag ct
402

```

&lt;210&gt; 3406

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3406

```

Gly Trp Glu Ala Pro Leu Gln Glu Arg Leu Ala Phe Tyr Gln Thr Ala
1      5      10      15
Ile Glu Ser Ala Arg Gln Ala Gly Asp Ser Ala Lys Met Arg Arg Tyr
20     25     30
Asp Arg Gly Leu Lys Thr Leu Glu Asn Leu Leu Ala Ser Ile Arg Lys
35     40     45
Gly Asn Ala Ile Asp Glu Ala Asp Ile Pro Pro Pro Val Ala Ile Gly
50     55     60
Lys Gly Pro Ala Ser Thr Pro Thr Tyr Ser Pro Ala Pro Thr Gln Pro
65     70     75     80
Ala Pro Arg Ile Ala Ser Ala Pro Glu Pro Arg Val Thr Leu Glu Gly
85     90     95
Pro Ser Ala Thr Ala Pro Ala Ser Ser Pro Gly Leu Ala Lys Pro Gln
100    105    110
Met Pro Pro Gly Pro Cys Ser Pro Pro Ser Gly Pro Val Ala Glu Pro
115    120    125
Pro Ala Arg Leu Gln Ala
130

```

&lt;210&gt; 3407

&lt;211&gt; 535

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3407

```

ggaatgaggg gggatgggga agaaccccc aggacagcac caagcaggtc tgcggggacc
60
tttcccgac accatgcctt ctcgcggtg aggcaggtg cggcaccgac aggcccgggg
120

```

gggacctttc ccggacaccc aacctcctcg gtggcgaggc aggtggcggc accgacaggc  
 180  
 ccggcgggga cctttcccg ancacctggc ctcttgga agcagggtggc ggcaccaaca  
 240  
 ggcccggggg ggacctttcc cggacacctg gcctcctcgg cgaggcaggt ggcagaactg  
 300  
 gttccacgtc tgatcttctt tagacaaacc tgccttcaga ggaaattgtg ttcaactgga  
 360  
 gaaactggaa aatgtactag atattggctg atatgaagga tatatgtttt aagtatgata  
 420  
 attcgatttt ggctctgtag ggaaaggctc ttatttttaa aagatgtgca ctagagaaaa  
 480  
 aggaaacagc atgtagcaaa tacatccacg gatgtctctc tggtttaaaa aaaaa  
 535

<210> 3408

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3408

Gly	Met	Arg	Gly	Asp	Gly	Glu	Glu	Pro	Pro	Arg	Thr	Ala	Pro	Ser	Arg
1			5						10					15	
Ser	Ala	Gly	Thr	Phe	Pro	Gly	His	His	Ala	Phe	Ser	Ala	Val	Arg	Gln
	20						25					30			
Val	Ala	Ala	Pro	Thr	Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Pro	Thr
	35					40				45					
Ser	Ser	Val	Ala	Arg	Gln	Val	Ala	Ala	Pro	Thr	Gly	Pro	Ala	Gly	Thr
	50				55					60					
Phe	Pro	Gly	Xaa	Pro	Gly	Leu	Leu	Gly	Lys	Gln	Val	Ala	Ala	Pro	Thr
65					70				75					80	
Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Leu	Ala	Ser	Ser	Ala	Arg	Gln
			85					90						95	
Val	Ala	Glu	Leu	Val	Pro	Arg	Leu	Ile	Phe	Leu	Arg	Gln	Thr	Cys	Leu
			100				105						110		
Gln	Arg	Lys	Leu	Cys	Ser	Thr	Gly	Glu	Thr	Gly	Lys	Cys	Thr	Arg	Tyr
		115					120					125			
Trp	Leu	Ile													
			130												

<210> 3409

<211> 959

<212> DNA

<213> Homo sapiens

<400> 3409

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 acgtttgctt tccaagtgcg aaactacaga cacgcgcgcg cacacacgca agcacacgcg  
 120  
 gagagagagg aaccttgccg gtccgaggca gctctgcgcg tccccctctg cgcttagcat  
 180  
 cctcggccca gcgcggcccg caccgccatg gaggtgctgg agagcgggga gcagggcgctg  
 240

ctgcagtggg accgcaagct gagcgagctg tcagagcccg gggacggcga ggcctcatg  
 300  
 taccacacgc acttctcaga acttctggat gagttttccc agaacgtctt gggtcagctc  
 360  
 ctgaatgata ctttcctctc agagaagagt gtgtcaatgg aggtggaacc ttccccgacg  
 420  
 tccccggcgc ctctcatcca ggctgagcac agctactccc tgtgagagga gcctcggggc  
 480  
 cagtcgccct tcaccacat taccaccagt gacagcttca atgacgatga ggtggaaagt  
 540  
 nngagaaatg gtacctgtct acagacttcc cttcaacatc catcaagaca gagccagtta  
 600  
 cagacgaacc acccccagga ctcgttccgt ctgtcactct gaccatcaca gccatctcca  
 660  
 ccncggttg aaaaggagga acctcctctg gaaatgaaca ctgggggttg ttcctcgtgc  
 720  
 cagaccatta ttcctaaat taagctggag cctcatgaag tggatcagtt tctaaacttc  
 780  
 tctcctaaag aaggctgtgc tngccctccc tgtgtccctt tgggttatgg atatggtctc  
 840  
 tgggtctaca gagagggaat atggcgagag agctgggatg agtttgtacc acagatggtg  
 900  
 tagctggctt tatgaaatag ctctgttctt aaaaaataaa aattttgctt ccaaataaa  
 959

<210> 3410

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3410

Met	Glu	Val	Leu	Glu	Ser	Gly	Glu	Gln	Gly	Val	Leu	Gln	Trp	Asp	Arg
1				5					10					15	
Lys	Leu	Ser	Glu	Leu	Ser	Glu	Pro	Gly	Asp	Gly	Glu	Ala	Leu	Met	Tyr
			20					25					30		
His	Thr	His	Phe	Ser	Glu	Leu	Leu	Asp	Glu	Phe	Ser	Gln	Asn	Val	Leu
		35					40					45			
Gly	Gln	Leu	Leu	Asn	Asp	Pro	Phe	Leu	Ser	Glu	Lys	Ser	Val	Ser	Met
		50			55						60				
Glu	Val	Glu	Pro	Ser	Pro	Thr	Ser	Pro	Ala	Pro	Leu	Ile	Gln	Ala	Glu
				70					75					80	
His	Ser	Tyr	Ser	Leu	Cys	Glu	Glu	Pro	Arg	Ala	Gln	Ser	Pro	Phe	Thr
				85				90						95	
His	Ile	Thr	Thr	Ser	Asp	Ser	Phe	Asn	Asp	Asp	Glu	Val	Glu	Ser	Xaa
			100					105					110		
Arg	Asn	Gly	Thr	Cys	Leu	Gln	Thr	Ser	Leu	Gln	His	Pro	Ser	Arg	Gln
		115					120					125			
Ser	Gln	Leu	Gln	Thr	Asn	His	Pro	Gln	Asp	Ser	Phe	Arg	Leu	Ser	Leu
		130				135						140			

<210> 3411

<211> 958

<212> DNA

<213> Homo sapiens

<400> 3411  
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 ggccggccgt tgtgccctca tccctccac ccttccttcg tatagcttcc tttctctca  
 120  
 cgacggcctc cacagtcggg agcccggcgg agcccgacc tggcggggag agctgcctcc  
 180  
 acggccgggc acccagaccc caccgtcgca gtcgccacca cctcagcca tcttggtac  
 240  
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 300  
 aactcacttc tgtcctcatc ccagtcgcgc cggcgggtgac catctcggct cttttgggct  
 360  
 taactgccgc tctctcggac tctgtctgac tttgggggca ccatggacca aagtgggatg  
 420  
 gagattcctg tgacctcat cattaagca ccgaatcaga aatacagtga ccagactatt  
 480  
 agctgcttct tgaactggac cgtggggaaa ctaaaaacgc atctatctaa cgtttaccct  
 540  
 agcaaaccat tgacgaagga tcagagattg gtgtattcgg gcagactgct tcccgatcat  
 600  
 ctgcagctga aagacattct cagaaaacaa gatgagtatc atatggttca tctagtatgt  
 660  
 acttctcggg ctcctcccag ttctccaaa tccagacca atagagaaag tcatgaagca  
 720  
 ttggcatcca gcagcaattc tagttcagat cattcaggat caacaactcc atcatctggt  
 780  
 caagaaacct tgtctttagc tgtgggttct tctcagaag gattgaggca gcgtaccctt  
 840  
 ccacaagcac aaactgacca agcacagagt caccagtttc catatgtaat gcaaggaaat  
 900  
 gtagacaacc aatttcctgg gcaagctgct ccacctggat tccagtgta tcccgcg  
 958

<210> 3412

<211> 185

<212> PRT

<213> Homo sapiens

<400> 3412

Met	Asp	Gln	Ser	Gly	Met	Glu	Ile	Pro	Val	Thr	Leu	Ile	Ile	Lys	Ala
1				5					10					15	
Pro	Asn	Gln	Lys	Tyr	Ser	Asp	Gln	Thr	Ile	Ser	Cys	Phe	Leu	Asn	Trp
			20					25					30		
Thr	Val	Gly	Lys	Leu	Lys	Thr	His	Leu	Ser	Asn	Val	Tyr	Pro	Ser	Lys
			35				40					45			
Pro	Leu	Thr	Lys	Asp	Gln	Arg	Leu	Val	Tyr	Ser	Gly	Arg	Leu	Leu	Pro
			50			55				60					
Asp	His	Leu	Gln	Leu	Lys	Asp	Ile	Leu	Arg	Lys	Gln	Asp	Glu	Tyr	His
65					70					75				80	
Met	Val	His	Leu	Val	Cys	Thr	Ser	Arg	Thr	Pro	Pro	Ser	Ser	Pro	Lys
					85				90					95	
Ser	Ser	Thr	Asn	Arg	Glu	Ser	His	Glu	Ala	Leu	Ala	Ser	Ser	Ser	Asn

			100					105					110			
Ser	Ser	Ser	Asp	His	Ser	Gly	Ser	Thr	Thr	Pro	Ser	Ser	Gly	Gln	Glu	
		115					120					125				
Thr	Leu	Ser	Leu	Ala	Val	Gly	Ser	Ser	Ser	Glu	Gly	Leu	Arg	Gln	Arg	
		130				135					140					
Thr	Leu	Pro	Gln	Ala	Gln	Thr	Asp	Gln	Ala	Gln	Ser	His	Gln	Phe	Pro	
145					150					155					160	
Tyr	Val	Met	Gln	Gly	Asn	Val	Asp	Asn	Gln	Phe	Pro	Gly	Gln	Ala	Ala	
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&lt;400&gt; 3415

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<210> 3420  
<211> 105  
<212> PRT  
<213> Homo sapiens

<400> 3420  
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35 40 45  
Cys Asp Thr Val Ala Leu Glu Ser Thr Thr Leu Arg Gly Thr Thr Arg  
50 55 60  
Glu Val Thr Arg Arg Ser Pro Ile Asn Met Lys His Pro Glu Gln Gly  
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<210> 3421  
<211> 2988  
<212> DNA  
<213> Homo sapiens

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&lt;210&gt; 3422

&lt;211&gt; 418

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3422

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 35 40 45  
 Leu Leu Leu Phe Ile Ile Ser Arg Pro Gly Pro Ser Ser Pro Ala Gly  
 50 55 60  
 Gly Glu Asp Arg Val His Val Leu Val Leu Ser Ser Trp Arg Ser Gly  
 65 70 75 80  
 Ser Ser Phe Leu Gly Gln Leu Phe Ser Gln His Pro Asp Val Phe Tyr  
 85 90 95  
 Leu Met Glu Pro Ala Trp His Val Trp Thr Thr Leu Ser Gln Gly Ser  
 100 105 110  
 Ala Ala Thr Leu His Met Ala Val Arg Asp Leu Met Arg Ser Ile Phe  
 115 120 125  
 Leu Cys Asp Met Asp Val Phe Asp Ala Tyr Met Glu Pro Gly Pro Arg  
 130 135 140  
 Arg Gln Ser Ser Leu Phe Gln Trp Glu Asn Ser Arg Ala Leu Cys Ser  
 145 150 155 160  
 Ala Pro Ala Cys Asp Ile Ile Pro Gln Asp Glu Ile Ile Pro Arg Ala  
 165 170 175  
 His Cys Arg Leu Leu Cys Ser Gln Gln Pro Phe Glu Val Val Glu Lys  
 180 185 190  
 Ala Cys Arg Ser Tyr Ser His Val Val Leu Lys Glu Val Arg Phe Phe  
 195 200 205  
 Asn Leu Gln Ser Leu Tyr Pro Leu Leu Lys Asp Pro Ser Leu Asn Leu  
 210 215 220  
 His Ile Val His Leu Val Arg Asp Pro Arg Ala Val Leu Arg Ser Arg  
 225 230 235 240  
 Glu Ala Ala Gly Pro Ile Leu Ala Arg Asp Asn Gly Ile Val Leu Gly  
 245 250 255  
 Thr Asn Gly Lys Trp Val Glu Ala Asp Pro His Leu Arg Leu Ile Arg  
 260 265 270  
 Glu Val Cys Arg Ser His Val Arg Ile Ala Glu Ala Ala Thr Leu Lys  
 275 280 285  
 Pro Pro Pro Phe Leu Arg Gly Arg Tyr Arg Leu Val Arg Phe Glu Asp  
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 Leu Ala Arg Glu Pro Leu Ala Glu Ile Arg Ala Leu Tyr Ala Phe Thr  
 305 310 315 320  
 Gly Leu Thr Leu Thr Pro Gln Leu Glu Ala Trp Ile His Asn Ile Thr  
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 His Gly Ser Gly Ile Gly Lys Pro Ile Glu Ala Phe His Thr Ser Ser  
 340 345 350  
 Arg Asn Ala Arg Asn Val Ser Gln Ala Trp Arg His Ala Leu Pro Phe  
 355 360 365  
 Thr Lys Ile Leu Arg Val Gln Glu Val Cys Ala Gly Ala Leu Gln Leu  
 370 375 380  
 Leu Gly Tyr Arg Pro Val Tyr Ser Ala Asp Gln Gln Arg Asp Leu Thr  
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&lt;210&gt; 3423

&lt;211&gt; 1851

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3423

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<210> 3424

<211> 136

<212> PRT

<213> Homo sapiens

<400> 3424

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Gln	Arg	Trp	Val	Ile	Gly	Arg	Cys	Leu	Cys	Val	Pro	Glu	Arg	Ser	Leu
	20						25						30		
Ala	Ser	Tyr	Gly	Val	Arg	Gln	Asp	Gly	Asp	Pro	Ala	Phe	Leu	Tyr	Leu
	35					40					45				
Leu	Ser	Ala	Pro	Arg	Glu	Ala	Pro	Ala	Thr	Gly	Pro	Ser	Pro	Gln	His
	50				55				60						
Pro	Gln	Lys	Met	Asp	Gly	Glu	Leu	Gly	Arg	Leu	Phe	Pro	Pro	Ser	Leu
65				70					75					80	
Gly	Leu	Pro	Pro	Gly	Pro	Gln	Pro	Ala	Ala	Ser	Ser	Leu	Pro	Ser	Pro
				85				90						95	
Leu	Gln	Pro	Ser	Trp	Ser	Cys	Pro	Ser	Cys	Thr	Phe	Ile	Asn	Ala	Pro
	100						105						110		
Asp	Arg	Pro	Gly	Cys	Glu	Met	Cys	Ser	Thr	Gln	Arg	Pro	Cys	Thr	Trp
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<210> 3425

<211> 1416

<212> DNA

<213> Homo sapiens

<400> 3425

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<210> 3426

<211> 410

<212> PRT

<213> Homo sapiens

<400> 3426

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 35 40 45  
 Arg Lys Ala Ala Ser Pro Gly Ala Pro Arg Pro Trp Pro Arg His Ser  
 50 55 60  
 Thr His Met Ala Ser Gly Val Gly Ala Ala Phe Glu Glu Leu Pro His

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65          70          75          80
Asp Gly Thr Cys Asp Glu Cys Glu Pro Asp Glu Ala Pro Gly Ala Glu
      85          90          95
Glu Val Cys Arg Glu Cys Gly Phe Cys Tyr Cys Arg Arg His Ala Glu
      100         105         110
Ala His Arg Gln Lys Phe Leu Ser His His Leu Ala Glu Tyr Val His
      115         120         125
Gly Ser Gln Ala Trp Thr Pro Pro Ala Asp Gly Glu Gly Ala Gly Lys
      130         135         140
Glu Glu Ala Glu Val Lys Val Glu Gln Glu Arg Glu Ile Glu Ser Glu
145         150         155         160
Ala Gly Glu Glu Ser Glu Ser Glu Glu Glu Ser Glu Ser Glu Glu Glu
      165         170         175
Ser Glu Thr Glu Glu Glu Ser Glu Asp Glu Ser Asp Glu Glu Ser Glu
      180         185         190
Glu Asp Ser Glu Glu Glu Met Glu Asp Glu Gln Glu Ser Glu Ala Glu
      195         200         205
Glu Asp Asn Gln Glu Glu Gly Glu Ser Glu Ala Glu Gly Glu Thr Glu
      210         215         220
Ala Glu Ser Glu Phe Asp Pro Glu Ile Glu Met Glu Ala Glu Arg Val
225         230         235         240
Ala Lys Arg Lys Cys Pro Asp His Gly Leu Asp Leu Ser Thr Tyr Cys
      245         250         255
Gln Glu Asp Arg Gln Leu Ile Cys Val Leu Cys Pro Val Ile Gly Ala
      260         265         270
His Gln Gly His Gln Leu Ser Thr Leu Asp Glu Ala Phe Glu Glu Leu
      275         280         285
Arg Ser Lys Asp Ser Gly Gly Leu Lys Ala Ala Met Ile Glu Leu Val
      290         295         300
Glu Arg Leu Lys Phe Lys Ser Ser Asp Pro Lys Val Thr Arg Asp Gln
305         310         315         320
Met Lys Met Phe Ile Gln Gln Glu Phe Lys Lys Val Gln Lys Val Ile
      325         330         335
Ala Asp Glu Glu Gln Lys Ala Leu His Leu Val Asp Ile Gln Glu Ala
      340         345         350
Met Ala Thr Ala His Val Thr Glu Ile Leu Ala Asp Ile Gln Ser His
      355         360         365
Met Asp Arg Leu Met Thr Gln Met Ala Gln Ala Lys Glu Gln Leu Asp
      370         375         380
Thr Ser Asn Glu Ser Ala Glu Pro Lys Ala Glu Gly Asp Glu Glu Gly
385         390         395         400
Pro Ser Gly Ala Ser Glu Glu Glu Asp Thr
      405         410

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&lt;210&gt; 3427

&lt;211&gt; 580

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3427

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120

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 240  
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 360  
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 420  
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 480  
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 580

&lt;210&gt; 3428

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3428

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Glu	Asn	Lys	Pro	Arg	Pro	Ser	Leu	Tyr	Ser	Leu	Gln	Asn	Phe	Glu	Glu
			20					25					30		
Met	Glu	Thr	Glu	Asp	Cys	Glu	Lys	Met	Ser	Asn	Met	Gly	Thr	Leu	Asn
		35					40					45			
Ser	Ser	Met	Leu	His	Arg	Ser	Ala	Glu	Ser	Leu	Lys	Ser	Leu	Ser	Ser
		50				55					60				
Glu	Leu	Cys	Pro	Glu	Lys	Ile	Leu	Pro	Glu	Glu	Lys	Pro	Val	His	Leu
65					70				75					80	
Pro	Val	Leu	Arg	Arg	Ser	Lys	Ser	Gln	Ser	Arg	Pro	Gln	Gln	Val	Lys
			85					90					95		
Phe	Ser	Asp	Asp	Val	Ile	Asp	Asn	Gly	Asn	Tyr	Asp	Ile	Glu	Ile	Arg
		100					105						110		
Gln	Pro	Pro	Met	Ser	Glu	Arg	Thr	Arg	Arg	Arg	Val	Tyr	Asn	Phe	Glu
		115				120						125			
Glu	Arg	Gly	Ser												
		130													

&lt;210&gt; 3429

&lt;211&gt; 634

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3429

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 gtcagcttcc ttttcatact ttcccggcgt tctctccacg agcaggtgca ccagggaacct  
 180



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<210> 3430

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3430

Phe	Leu	Leu	Arg	Val	Ala	Leu	Ala	Val	Ser	Phe	Leu	Phe	Ile	Leu	Ser
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			20				25					30			
Tyr	Thr	Val	Thr	Thr	Val	Thr	Thr	Gln	Gly	Phe	Pro	Leu	Pro	Thr	Gly
		35				40					45				
Gln	His	Ile	Pro	Gly	Cys	Ser	Ala	Gln	Gln	Leu	Pro	Ala	Cys	Ser	Val
	50				55					60					
Met	Phe	Ser	Gly	Gln	His	Tyr	Pro	Leu	Cys	Cys	Leu	Pro	Pro	Pro	Leu
65				70				75						80	
Ile	Gln	Ala	Cys	Thr	Met	Gln	Gln	Leu	Pro	Val	Pro	Tyr	Gln	Ala	Tyr
			85					90					95		
Pro	His	Leu	Ile	Ser	Ser	Asp	His	Tyr	Ile	Leu	His	Pro	Pro	Pro	Pro
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<210> 3431

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 3431

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&lt;210&gt; 3432

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3432

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 Gly Val Tyr Leu Met Arg Leu Glu Leu Cys Asp Pro Thr Gln Arg Leu  
 20 25 30  
 Arg Val Ala Leu Ala Gly Glu Leu Val Gly Val Gly Gly His Phe Leu  
 35 40 45  
 Phe Leu Gly Leu Ala Leu Val Ser Lys Asp Trp Arg Phe Leu Gln Arg

50                      55                      60  
 Met Ile Thr Ala Pro Cys Ile Leu Phe Leu Phe Tyr Gly Trp Pro Gly  
 65                      70                      75                      80  
 Leu Phe Leu Glu Ser Ala Arg Trp Leu Ile Val Lys Arg Gln Ile Glu  
                     85                      90                      95  
 Glu Ala Gln Ser Val Leu Arg Ile Leu Ala Glu Arg Asn Arg Pro His  
                     100                      105                      110  
 Gly Gln Met Leu Gly Glu Glu Ala Gln Glu Ala Leu Gln Asp Leu Glu  
                     115                      120                      125  
 Asn Thr Cys Pro Leu Pro Ala Thr Ser Ser Phe Ser Phe Ala Ser Leu  
                     130                      135                      140  
 Leu Asn Tyr Arg Asn Ile Trp Lys Asn Leu Leu Ile Leu Gly Phe Thr  
 145                      150                      155                      160  
 Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr Gln Pro Val Gly Gly  
                     165                      170                      175  
 Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser Leu Leu Ala Ser Gly  
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 Thr Ala Ala Leu Ala Cys Val Phe Leu Gly Val Thr Val Asp Arg Phe  
                     195                      200                      205  
 Gly Arg Arg Gly Ile Leu Leu Ser Met Thr Leu Thr Gly Ile Ala  
                     210                      215                      220  
 Ser Leu Val Leu Leu Gly Leu Trp Asp Cys Glu His Pro Ile Phe Pro  
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 Thr Val Trp Ala Gln Gln Gly Asn Pro Asn Arg Asp Leu Asn Glu Ala  
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 Ala Ile Thr Thr Phe Ser Val Leu Gly Leu Phe Ser Ser Gln Ala Ala  
                     260                      265                      270  
 Ala Ile Leu Ser Thr Leu Leu Ala Ala Glu Val Ile Pro Thr Thr Val  
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&lt;210&gt; 3433

&lt;211&gt; 1257

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3433

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&lt;210&gt; 3434

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3434

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			20					25					30		
Gly	Arg	Gln	Arg	Pro	Gln	Arg	Pro	Ser	His	Ser	Arg	Ser	His	Thr	Arg
		35					40					45			
Ser	Asn	Leu	Lys	Arg	Asp	Val	Ala	His	Leu	Tyr	Arg	Gly	Val	Gly	Ser
	50				55					60					
Arg	Tyr	Ile	Met	Gly	Ser	Gly	Glu	Ser	Phe	Met	Gln	Leu	Gln	Gln	Arg
65					70					75				80	
Leu	Leu	Arg	Glu	Lys	Glu	Ala	Lys	Ile	Arg	Lys	Ala	Leu	Asp	Arg	Leu
				85					90					95	
Arg	Lys	Lys	Arg	His	Leu	Leu	Arg	Arg	Gln	Arg	Thr	Arg	Arg	Glu	Phe
			100					105						110	
Pro	Val	Ile	Ser	Val	Val	Gly	Tyr	Thr	Asn	Cys	Gly	Glu	His	Ala	Pro
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Arg	Gly	Gly	Ala	Phe	Arg	Gly	Leu	Arg	Val	Thr	Gly	Glu	Asp	Ser	Pro
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Gly	Gly	Gly	Gln	Gly	Val	Pro	Val	Val	Ser	Val	Val	Pro	Tyr	Asp	Ser
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Cys	Gly	Glu	His	Val	Pro	Arg	Arg	Gly	Gly	Ser	His	Gly	Arg	Arg	Val

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      210      215      220
Ser Ile Tyr Thr Ile Leu Leu Ser Arg Pro Ser Pro Leu Pro Tyr Leu
      225      230      235      240
Tyr His His Pro Val Tyr Thr Ile His Pro Ser Thr Pro Ser Pro Leu
      245      250      255
Leu Cys Leu Tyr His Pro Pro Val Tyr Thr Ser Thr Thr Thr Pro Ser
      260      265      270
Ile Pro Pro Pro Arg Leu His Asn Pro Pro Val Tyr Thr Thr Met Ser
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Pro Ser Ser Ala Pro Ser Ser Cys Leu His Trp His His Cys Pro Ser
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Tyr Thr Thr Thr Pro Ser Thr
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&lt;210&gt; 3435

&lt;211&gt; 1225

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3435

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840

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<210> 3436  
 <211> 408  
 <212> PRT  
 <213> Homo sapiens

<400> 3436  
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 35 40 45  
 Glu Ser Asp Gly Ser Gln Cys Gln His Trp Val Arg Leu Thr Met Lys  
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 Lys Gly Thr Ile Val Lys Lys Leu Leu Leu Ala Val Asp Thr Thr Asp  
 65 70 75 80  
 Asp Asn Phe Met Pro Lys Arg Val Val Val Tyr Gly Gly Glu Gly Asp  
 85 90 95  
 Asn Leu Lys Lys Leu Ser Asp Val Ser Ile Asp Xaa Arg Pro Ser Ser  
 100 105 110  
 Gly Xaa Val Cys Val Leu Glu Asp Met Thr Val His Leu Pro Ile Ile  
 115 120 125  
 Glu Ile Arg Ile Val Glu Cys Arg Asp Asp Gly Ile Asp Val Arg Leu  
 130 135 140  
 Arg Gly Val Lys Ile Lys Ser Ser Arg Gln Arg Glu Leu Gly Leu Asn  
 145 150 155 160  
 Ala Asp Leu Phe Gln Pro Thr Ser Leu Val Arg Tyr Pro Arg Leu Glu  
 165 170 175  
 Gly Thr Asp Pro Glu Val Leu Tyr Arg Arg Ala Val Leu Leu Gln Arg  
 180 185 190  
 Phe Ile Lys Ile Leu Asp Ser Val Leu His His Leu Val Pro Ala Trp  
 195 200 205  
 Asp His Thr Leu Gly Thr Phe Ser Glu Ile Lys Gln Val Lys Gln Phe  
 210 215 220  
 Leu Leu Leu Ser Arg Gln Arg Pro Gly Leu Val Ala Gln Cys Leu Arg  
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<210> 3437

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 3437

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<210> 3438

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3438

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			20					25					30		
Glu	Ala	Glu	Pro	Gln	Trp	Glu	Arg	Glu	Gly	Ala	Arg	Phe	Thr	Thr	Pro



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  50              55              60
Pro Leu Arg Val Pro Cys Leu Ala Thr Gln Pro Leu Pro Ala Gln Glu
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Pro Gly Arg Ala Gln Pro Arg Ala Gly Gly Gly Ile Cys Glu Gly Ala
      85              90              95
Gly Arg Arg Gly Ala Ala Glu Asp Pro
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&lt;210&gt; 3439

&lt;211&gt; 1519

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3439

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1140

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<210> 3440

<211> 287

<212> PRT

<213> Homo sapiens

<400> 3440

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Leu	Ser	Pro	Cys	Ser	Pro	Val	Ser	Arg	Pro	Pro	Arg	Ala	Ser	Thr
		20					25					30		Ala
Val	Ala	Ala	Ala	Ala	Arg	Trp	Pro	Arg	Gln	Pro	Arg	His	Pro	Arg
		35					40					45		His
Thr	Ser	Pro	Met	Pro	Pro	Pro	Ala	Ala	Leu	Arg	Pro	Pro	Ala	Gly
		50				55					60			Pro
Arg	Arg	Pro	Arg	Xaa	Pro	Gly	Gly	Pro	Gln	His	His	Gln	Pro	Gln
		65			70				75				80	Pro
Pro	Leu	Trp	Thr	Pro	Thr	Pro	Pro	Ser	Pro	Ala	Ser	Asp	Trp	Pro
			85					90					95	Pro
Leu	Pro	Pro	Asn	Arg	Pro	Pro	Gln	Asn	Pro	Gly	Pro	Thr	Leu	Pro
		100					105					110		Trp
Arg	Gln	Arg	Asp	Lys	Gly	Gly	Pro	Ser	Pro	Leu	Pro	Glu	Ala	Arg
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Pro	Trp	Gly	Gly	Gly	Glu	Asp	Val	Ser	Ala	Gly	Pro	Leu	Xaa	Thr
		130				135					140			Pro
Phe	Leu	Ser	Ala	Pro	Leu	Val	Pro	Arg	Ser	Pro	Gly	Gly	Glu	Ser
		145			150				155					Ala
Asp	Ser	Ser	Gln	Ala	Gly	Thr	Arg	Leu	Val	Pro	Glu	His	Ala	Ala
			165					170					175	Ala
His	Thr	Gln	Gly	His	Gly	Pro	Ser	Gly	Pro	Gly	Thr	Trp	Ser	Gly
		180						185				190		Ser
Glu	Arg	Pro	Gly	Cys	Leu	Ala	Asp	Arg	Thr	Ser	Glu	Thr	Thr	Gln
		195				200					205			Pro
Ser	Phe	Glu	Asp	Ala	Pro	Ala	Gln	Pro	Ser	Pro	Gly	Val	Pro	Trp
		210				215					220			Arg
Thr	Thr	Leu	Ala	Glu	Thr	Leu	Leu	Ile	Pro	Gly	Leu	Glu	Leu	Gly
		225			230				235					240
Gly	Arg	Gln	Ala	Ser	Thr	Pro	Thr	Leu	Gly	Asn	Ala	Glu	Pro	Leu
			245					250				255		Arg
Met	Cys	Ala	Arg	Gly	Arg	Val	Cys	Val	Phe	Leu	Arg	Val	Ser	Leu
														Phe

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 <211> 2074  
 <212> DNA  
 <213> Homo sapiens

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<210> 3442

<211> 374

<212> PRT

<213> Homo sapiens

<400> 3442

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		20						25					30		
Ala	Glu	Leu	Leu	Met	Ser	Leu	His	Asp	Leu	Asp	Val	Gly	Glu	Ile	Cys
		35					40					45			
Thr	Val	Asp	Pro	Cys	His	Lys	Phe	Thr	Trp	Cys	Leu	Asp	Ala	Cys	Ile
	50					55				60					
Arg	Glu	Arg	Phe	Val	Asp	Ser	Lys	Arg	Ala	Arg	Glu	Leu	Gln	Gly	Phe
65				70					75					80	
Leu	Asp	Asp	Val	Lys	Lys	Gly	Gln	Glu	Gln	Val	Leu	Gly	Asp	Leu	Ser
				85				90					95		
Met	Ile	Leu	Cys	Asp	Pro	Phe	Ala	Ile	Asn	Thr	Leu	Ala	Leu	Ser	Thr
		100					105					110			
Val	Arg	His	Leu	Gln	Glu	Leu	Val	Gly	Gln	Glu	Thr	Leu	Pro	Arg	Asp
		115					120					125			
Ser	Pro	Asp	Leu	Leu	Leu	Leu	Arg	Leu	Leu	Ala	Leu	Gly	Gln	Gly	
	130					135				140					
Ala	Trp	Asp	Met	Ile	Asp	Ser	Gln	Val	Phe	Lys	Glu	Pro	Lys	Met	Glu
145				150					155					160	
Val	Glu	Leu	Ile	Thr	Arg	Phe	Leu	Pro	Met	Leu	Met	Ser	Phe	Leu	Val

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 180 185 190  
 Ala Pro Val Ser Tyr Pro Asn Thr Leu Pro Glu Ser Phe Thr Lys Phe  
 195 200 205  
 Leu Gln Glu Gln Arg Met Ala Cys Glu Val Gly Leu Tyr Tyr Val Leu  
 210 215 220  
 His Ile Thr Lys Gln Arg Asn Lys Asn Ala Leu Leu Arg Leu Leu Pro  
 225 230 235 240  
 Gly Leu Val Glu Thr Phe Gly Asp Leu Ala Phe Gly Asp Ile Phe Leu  
 245 250 255  
 His Leu Leu Thr Gly Asn Leu Ala Leu Leu Ala Asp Glu Phe Ala Leu  
 260 265 270  
 Glu Asp Phe Cys Ser Ser Leu Phe Asp Gly Phe Phe Leu Thr Ala Ser  
 275 280 285  
 Pro Arg Lys Glu Asn Val His Arg His Ala Leu Arg Leu Leu Ile His  
 290 295 300  
 Leu His Pro Arg Val Ala Pro Ser Lys Leu Glu Ala Leu Gln Lys Ala  
 305 310 315 320  
 Leu Glu Pro Thr Gly Gln Ser Gly Glu Ala Val Lys Glu Leu Tyr Ser  
 325 330 335  
 Gln Leu Gly Glu Lys Leu Glu Gln Leu Asp His Arg Lys Pro Ser Pro  
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 Pro Ala Pro Ala Pro Leu  
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&lt;210&gt; 3443

&lt;211&gt; 2070

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3443

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2070

&lt;210&gt; 3444

&lt;211&gt; 579

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3444

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      20              25              30
Ser Glu Asn Val Glu Lys Ser Lys Ala Tyr Lys Leu Asn Pro Lys Phe
      35              40              45
Cys Ser Leu Ser Phe Gln Ala Thr Lys Cys Lys Leu Ala Gly Leu Glu
      50              55              60
Val Leu Ser Asp Asp Pro Asp Leu Val Lys Val Val Glu Ser Leu Thr
      65              70              75              80
Cys Gly Lys Ile Phe Ala Val Glu Ile Leu Asp Lys Ala Asp Ile Pro
      85              90              95
Leu Val Val Leu Tyr Asp Thr Ser Gly Glu Asp Asp Ile Asn Ile Asn
      100             105             110
Ala Thr Cys Leu Lys Ala Ile Cys Asp Lys Ser Leu Glu Val His Leu
      115             120             125
Gln Val Asp Ala Met Tyr Thr Asn Val Lys Ile Thr Asn Ile Cys Ser
      130             135             140
Asp Gly Thr Leu Tyr Cys Gln Val Pro Cys Lys Gly Leu Asn Lys Leu
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Ser Asp Leu Leu Arg Lys Ile Glu Asp Tyr Phe His Cys Lys His Met
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Thr Ser Glu Cys Phe Val Ser Leu Pro Phe Cys Gly Lys Ile Cys Leu
      180             185             190
Phe His Cys Lys Gly Lys Trp Leu Arg Val Glu Ile Thr Asn Val His
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Ser Ser Arg Ala Leu Asp Val Gln Phe Leu Asp Ser Gly Thr Val Thr
      210             215             220
Ser Val Lys Val Ser Glu Leu Arg Glu Ile Pro Pro Arg Phe Leu Gln
      225             230             235             240
Glu Met Ile Ala Ile Pro Pro Gln Ala Ile Lys Cys Cys Leu Ala Asp
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Leu Pro Gln Ser Ile Gly Met Trp Thr Pro Asp Ala Val Leu Trp Leu
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Arg Asp Ser Val Leu Asn Cys Ser Asp Cys Ser Ile Lys Val Thr Lys
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Val Asp Glu Thr Arg Gly Ile Ala His Val Tyr Leu Phe Thr Pro Lys
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Asn Phe Pro Asp Pro His Arg Ser Ile Asn Arg Gln Ile Thr Asn Ala
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Asp Leu Trp Lys His Gln Lys Asp Val Phe Leu Ser Ala Ile Ser Ser
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Gly Ala Asp Ser Pro Asn Ser Lys Asn Gly Asn Met Pro Met Ser Gly
      340             345             350
Asn Thr Gly Glu Asn Phe Arg Lys Asn Leu Thr Asp Val Ile Lys Lys
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Ser Met Val Asp His Thr Ser Ala Phe Ser Thr Glu Glu Leu Pro Pro
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Pro Val His Leu Ser Lys Pro Gly Glu His Met Asp Val Tyr Val Pro
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Val Ala Cys His Pro Gly Tyr Phe Val Ile Gln Pro Trp Gln Glu Ile

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 Asp Arg Lys Val Val Val Tyr Leu Val Asp Thr Ser Leu Pro Asp Thr  
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 Lys Val Asn

&lt;210&gt; 3445

&lt;211&gt; 2086

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3445

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 720



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2086

&lt;210&gt; 3446

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3446

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      20           25           30
Met Asp Asp Glu Phe Gln Leu Leu Gln Arg Asn Phe Met Asp Lys Tyr
      35           40           45
Tyr Leu Glu Phe Glu Asp Thr Glu Glu Asn Lys Leu Ile Tyr Thr Pro
      50           55           60
Ile Phe Asn Glu Tyr Ile Ser Leu Val Glu Lys Tyr Ile Glu Glu Gln
      65           70           75           80
Leu Leu Gln Arg Ile Pro Glu Phe Asn Met Ala Ala Phe Thr Thr Thr
      85           90           95
Leu His His Leu Phe Arg Leu Arg His His Lys Asp Glu Val Ala Gly
      100          105          110
Asp Ile Phe Asp Met Leu Leu Thr Phe Thr Asp Phe Leu Ala Phe Lys
      115          120          125
Glu Met Phe Leu Asp Tyr Arg Ala Glu Lys Glu Gly Arg Gly Leu Asp
      130          135          140
Leu Ser Ser Gly Leu Val Val Thr Ser Leu Cys Lys Ser Ser Ser Leu
      145          150          155          160
Pro Ala Ser Gln Asn Asn Leu Arg His
      165

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&lt;210&gt; 3447

&lt;211&gt; 936

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3447

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<210> 3448

<211> 302

<212> PRT

<213> Homo sapiens

<400> 3448

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Val	Gln	Ala	Ala	Asp	Gly	Gly	Ala	Ala	Gly	Pro	Tyr	Ser	Ser	Ser	Glu
			20					25					30		
Leu	Leu	Glu	Gly	Gln	Glu	Pro	Asp	Gly	Val	Arg	Phe	Asp	Arg	Glu	Arg
		35					40					45			
Ala	Arg	Arg	Leu	Trp	Glu	Ala	Val	Ser	Gly	Ala	Gln	Pro	Val	Gly	Arg
	50					55					60				
Glu	Glu	Val	Glu	His	Met	Ile	Gln	Lys	Asn	Gln	Cys	Leu	Phe	Thr	Asn
65				70					75						80
Thr	Gln	Cys	Lys	Val	Cys	Cys	Ala	Leu	Leu	Ile	Ser	Glu	Ser	Gln	Lys
			85					90						95	
Leu	Ala	His	Tyr	Gln	Ser	Lys	Lys	His	Ala	Asn	Lys	Val	Lys	Arg	Tyr
		100						105					110		
Leu	Ala	Ile	His	Gly	Met	Glu	Thr	Leu	Lys	Gly	Glu	Thr	Lys	Lys	Leu
		115					120					125			
Asp	Ser	Asp	Gln	Lys	Ser	Ser	Arg	Ser	Lys	Asp	Lys	Asn	Gln	Cys	Cys
		130				135					140				
Pro	Ile	Cys	Asn	Met	Thr	Phe	Ser	Ser	Pro	Val	Ala	Gln	Ser	His	
145				150					155					160	
Tyr	Leu	Gly	Lys	Thr	His	Ala	Lys	Asn	Leu	Lys	Leu	Lys	Gln	Gln	Ser
			165					170						175	
Thr	Lys	Val	Glu	Ala	Leu	His	Gln	Asn	Arg	Glu	Met	Ile	Asp	Pro	Asp
		180						185					190		
Lys	Phe	Cys	Ser	Leu	Cys	His	Ala	Thr	Phe	Asn	Asp	Pro	Val	Met	Ala
		195					200					205			
Gln	Gln	His	Tyr	Val	Gly	Lys	Lys	His	Arg	Lys	Gln	Glu	Thr	Lys	Leu
		210				215					220				
Lys	Leu	Met	Ala	Arg	Tyr	Gly	Arg	Leu	Ala	Asp	Pro	Ala	Val	Thr	Asp
225				230					235					240	
Phe	Pro	Ala	Gly	Lys	Gly	Tyr	Pro	Cys	Lys	Thr	Cys	Lys	Ile	Val	Leu
			245					250					255		
Asn	Ser	Ile	Glu	Gln	Tyr	Gln	Ala	His	Val	Ser	Gly	Phe	Lys	His	Lys
		260					265						270		
Asn	Gln	Ser	Pro	Lys	Thr	Val	Ala	Ser	Ser	Leu	Gly	Gln	Ile	Pro	Met
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Gln	Arg	Gln	Pro	Ile	Gln	Lys	Asp	Ser	Thr	Thr	Leu	Glu	Asp		
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<210> 3449

<211> 877

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3449

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120
ccggcccttc tggccggcac caaccctgtt gctgtcgtcg cggatggagg cagttgcccc
180
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240
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300
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360
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420
atgattacag ctcttttgag gaagcttaag cagcaatcca gggaaagtgt tgaagaaaaa
480
cgacctgat tattaagaag cctgaaagag ctagggtgact tttatctaga acttcactgg
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gattttcaaa gctgggtgcc tttactttcc cgaattctgc cttccgatgc atgtaaaata
600
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720
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780
ggaatcagag atggaaacag aagaagaggt ggatatttta atgagcagtg atatttactc
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877

```

&lt;210&gt; 3450

&lt;211&gt; 276

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3450

```

Xaa Ile Phe Ser Asn His His His Arg Leu Gln Leu Lys Ala Ala Pro
1           5           10           15
Ala Ser Ser Asn Pro Pro Gly Ala Pro Ala Leu Pro Leu His Asn Ser
20           25           30
Ser Val Thr Ala Asn Ser Gln Ser Pro Ala Leu Leu Ala Gly Thr Asn
35           40           45
Pro Val Ala Val Val Ala Asp Gly Gly Ser Cys Pro Ala His Tyr Pro
50           55           60
Val His Glu Cys Val Phe Lys Gly Asp Val Arg Arg Leu Ser Ser Leu
65           70           75           80
Ile Arg Thr His Asn Ile Gly Gln Lys Asp Asn His Gly Asn Thr Pro
85           90           95
Leu His Leu Ala Val Met Leu Gly Asn Lys Glu Cys Ala His Leu Leu

```

```

      100      105      110
Leu Ala His Asn Ala Pro Val Lys Val Lys Asn Ala Gln Gly Trp Ser
      115      120      125
Pro Leu Ala Glu Ala Ile Ser Tyr Gly Asp Arg Gln Met Ile Thr Ala
      130      135      140
Leu Leu Arg Lys Leu Lys Gln Gln Ser Arg Glu Ser Val Glu Glu Lys
      145      150      155      160
Arg Pro Arg Leu Leu Lys Ala Leu Lys Glu Leu Gly Asp Phe Tyr Leu
      165      170      175
Glu Leu His Trp Asp Phe Gln Ser Trp Val Pro Leu Leu Ser Arg Ile
      180      185      190
Leu Pro Ser Asp Ala Cys Lys Ile Tyr Lys Gln Gly Ile Asn Ile Arg
      195      200      205
Leu Asp Thr Thr Leu Ile Asp Phe Thr Asp Met Lys Cys Gln Arg Gly
      210      215      220
Asp Leu Ser Phe Ile Phe Asn Gly Asp Ala Ala Pro Ser Glu Ser Phe
      225      230      235      240
Val Val Leu Asp Asn Glu Gln Lys Val Tyr Gln Arg Ile His His Glu
      245      250      255
Ala His Ile Pro Gly Ile Arg Asp Gly Asn Arg Arg Arg Gly Gly Tyr
      260      265      270
Phe Asn Glu Gln
      275

```

&lt;210&gt; 3451

&lt;211&gt; 595

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3451

```

gcatttttac agtttgtata tccattttc aaggcttcag tggggctgct tagacaaaaa
60
cgatcttcag ggtttacaga atgggtcctc cttaaagetct ctgagccccc gccgtaggta
120
gaaatattca gtaagtagtg ccctgccatt gcaggtttgg atgtccttct gccagcaaaa
180
cccagcatga acctctggct tgtggagatg tcttcagct ggaaacctga gtgagcgaag
240
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300
gtctgaagga tctgatcttg ggttgcttta cttagtcctt cgtggtattg gtgtgtgtca
360
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420
agctgcttac ttgcaaggt ttgcccagc tgcctgctgc tagctggatg ggactgtctc
480
tcattaactt cctctctggg gctattttct gttgtgttgg tagctatgag cgctcccatc
540
ccctttcct cttttgcagg caggggaacc gcttccattt caactttggg gagag
595

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&lt;210&gt; 3452

&lt;211&gt; 192

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3452

```

Met Glu Ala Val Pro Leu Pro Ala Lys Glu Glu Arg Gly Met Gly Ala
 1             5             10             15
Leu Ile Ala Thr Asn Thr Thr Glu Asn Ser Thr Arg Glu Glu Val Asn
             20             25             30
Glu Arg Gln Ser His Pro Ala Thr Gln Gln Gln Leu Gly Lys Thr Leu
             35             40             45
Gln Ser Lys Gln Leu Pro Gln Val Pro Arg Pro Leu Gln Leu Phe Ser
             50             55             60
Ala Lys Glu Leu Arg Asp Ser Ser Ile Asp Thr His Gln Tyr His Glu
65             70             75             80
Gly Leu Ser Lys Ala Thr Gln Asp Gln Ile Leu Gln Thr Leu Ile Gln
             85             90             95
Arg Val Arg Arg Gln Asn Leu Leu Ser Val Val Pro Pro Ser Gln Phe
             100            105            110
Asn Phe Ala His Ser Gly Phe Gln Leu Glu Asp Ile Ser Thr Ser Gln
             115            120            125
Arg Phe Met Leu Gly Phe Ala Gly Arg Arg Thr Ser Lys Pro Ala Met
             130            135            140
Ala Gly His Tyr Leu Leu Asn Ile Ser Thr Tyr Gly Arg Gly Ser Glu
145            150            155            160
Ser Phe Arg Arg Thr His Ser Val Asn Pro Glu Asp Arg Phe Cys Leu
             165            170            175
Ser Ser Pro Thr Glu Ala Leu Lys Met Gly Tyr Thr Asn Cys Lys Asn
             180            185            190

```

&lt;210&gt; 3453

&lt;211&gt; 477

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3453

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nnacgcgtga aggggtcccg ccgcggggct ggcgggctga ggggagaaaa gatggcggcg
60
gcggcgccag ctggtgcggc ctccgggctg ccgggtccag tggcacaagg attaaaggaa
120
gcgttagtgg atacgctcac cgggataccta tccccagtac aggaggtgcg ggcggctgct
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gaagaacaga ttaaggtgct ggaggtgacg gaggaatttg gtgttcactt ggcagaactg
240
actgtagatc ccagggggc actggcaatc cgtcagctgg catcagtcac cttgaaacaa
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360
agggcaaaaa ttgttatccg ggagctattg cctaattggg tgagagaatc gataagcaaa
420
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477

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&lt;210&gt; 3454

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3454

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 1 5 10 15  
 Lys Met Ala Ala Ala Ala Ala Ala Gly Ala Ala Ser Gly Leu Pro Gly  
 20 25 30  
 Pro Val Ala Gln Gly Leu Lys Glu Ala Leu Val Asp Thr Leu Thr Gly  
 35 40 45  
 Ile Leu Ser Pro Val Gln Glu Val Arg Ala Ala Ala Glu Glu Gln Ile  
 50 55 60  
 Lys Val Leu Glu Val Thr Glu Glu Phe Gly Val His Leu Ala Glu Leu  
 65 70 75 80  
 Thr Val Asp Pro Gln Gly Ala Leu Ala Ile Arg Gln Leu Ala Ser Val  
 85 90 95  
 Ile Leu Lys Gln Tyr Val Glu Thr His Trp Cys Ala Gln Ser Glu Lys  
 100 105 110  
 Phe Arg Pro Pro Glu Thr Thr Glu Arg Ala Lys Ile Val Ile Arg Glu  
 115 120 125  
 Leu Leu Pro Asn Gly Leu Arg Glu Ser Ile Ser Lys Val Arg Ser Ser  
 130 135 140  
 Val Ala Tyr Ala Val Ser Ala Ile Ala His Trp Asp Trp Pro Glu  
 145 150 155

&lt;210&gt; 3455

&lt;211&gt; 4886

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3455

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 60  
 cccaggatca cactcactgc accctcaact cagaccgtta cctggcacac tggcctcact  
 120  
 cttgtcggag actgagctat tggcagtgcc ttcagctctg agctcaggca cctcgaacat  
 180  
 tgtttttgtc gttaaggatc ctaaagtgtc gtggggagtg atcacatttt tctcaacatc  
 240  
 cctggcccca cctcttctgc cacaaacgtc agcatggtgg tatcagccgg ccctttgtcc  
 300  
 agcgagaagg cagagatgaa cattctagaa atcaatgaga aattgcgccc ccagttggca  
 360  
 gagaagaaac agcagttcag aaacctcaaa gagaaatgtt ttctaactca actggccggc  
 420  
 ttcttgccca accgacagaa gaaatacaaa tatgaagagt gtaaagatct cataaaattt  
 480  
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 600  
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 660  
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 720

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780  
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<210> 3456

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3456

Glu	Ile	Glu	Lys	Lys	Gly	Lys	Gly	Lys	Lys	Arg	Arg	Gly	Arg	Arg	Ser
1			5					10						15	
Lys	Lys	Gln	Arg	Arg	Arg	Gly	Arg	Lys	Glu	Gly	Glu	Glu	Asp	Gln	Asn
		20						25					30		
Pro	Pro	Cys	Pro	Arg	Leu	Asn	Gly	Val	Leu	Met	Glu	Val	Glu	Glu	Pro
		35					40					45			
Glu	Val	Leu	Gln	Asp	Ser	Leu	Asp	Arg	Cys	Tyr	Ser	Thr	Pro	Ser	Met
	50					55				60					
Tyr	Phe	Glu	Leu	Pro	Asp	Ser	Phe	Gln	His	Tyr	Arg	Ser	Val	Phe	Tyr
65					70					75				80	
Ser	Phe	Glu	Glu	Glu	His	Ile	Ser	Phe	Ala	Leu	Tyr	Val	Asp	Asn	Arg
					85				90					95	
Phe	Phe	Thr	Leu	Thr	Val	Thr	Ser	Leu	His	Leu	Val	Phe	Gln	Met	Gly
			100					105					110		
Val	Ile	Phe	Pro	Gln											

115

&lt;210&gt; 3457

&lt;211&gt; 646

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3457

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 gtccctgggt gtgtctgtgc ctgtgtgtgc gttgatatct gtgcctgcct cttcacacat  
 120  
 aggtgggaat gcagagtgtg tattctttgt nnatgcacct gtacacaggc tngggcgggc  
 180  
 aagtgaggat gcgtatgtnn ggttggtgtgt gtctgtatct gcatttgcac gngtgtattg  
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 gagattggag ctgtgtgtct gtgcgtgtgt gtagtgtgta cegtgtgcac atgtatgtgt  
 300  
 gtgcctgtgg accagcacct gtgttgccac atttgggtga cggtagatcc atgcactnng  
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 gtctgcaggt gtatttgca gtgcgtgtgt ctgtctaaca cactctgtag atgtcgccgc  
 420  
 ctgaatgaga gccagagcag agctctcccc agccctcccc aagtactgtt cccctctacc  
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 540  
 aacctccag gccttctctt gccacagget ctgtctctgt cccgtcgctg tgcctcctgc  
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 646

&lt;210&gt; 3458

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3458

Thr	Arg	Asp	Phe	Val	Ser	Met	Ser	Arg	Cys	Pro	Cys	Ala	Cys	Val	Cys
1				5					10					15	
Arg	Cys	Val	Xaa	Val	Pro	Gly	Cys	Val	Cys	Ala	Cys	Val	Cys	Val	Asp
		20					25					30			
Ile	Cys	Ala	Cys	Leu	Phe	Thr	His	Arg	Trp	Glu	Cys	Arg	Val	Cys	Ile
		35					40				45				
Leu	Cys	Xaa	Cys	Thr	Cys	Thr	Gln	Ala	Xaa	Ala	Gly	Lys			
	50					55					60				

&lt;210&gt; 3459

&lt;211&gt; 592

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3459

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 180  
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 240  
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 300  
 cttccctgt gtgcagcctc agtttgctg ctgcagaata agcaccacgc tccctcgtgg  
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 420  
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 480  
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 592

<210> 3460  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<400> 3460  
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 Gly Pro Ser Leu Cys Ala Ala Ser Val Cys Leu Leu Gln Asn Lys His  
 35 40 45  
 His Ala Pro Ser Trp Ala Glu Ala Pro Ala Asp Ser Pro Arg Ala Leu  
 50 55 60  
 Gln Ala Cys Pro Val Leu Cys Gln Ala Gly Pro Gly His Val Pro Ala  
 65 70 75 80  
 Pro Gly Ala Gly Leu Gln Arg Gly Gln Trp Ser Ala Leu Lys Thr Val  
 85 90 95  
 Ile Pro Ala Arg Pro Ala Leu Pro Cys Ser Ala Arg Gly Gln Phe Glu  
 100 105 110  
 Leu Lys Leu  
 115

<210> 3461  
 <211> 474  
 <212> DNA  
 <213> Homo sapiens

<400> 3461  
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 120  
 agctttgcgt ccgtggcaga tgcagctcc agtcgcagcc gcaccttcg gatggcctg  
 180

ctggaagcca gcatcggggt ggctgggatg ctggcaagcc tcctcggggg ccactggctc  
 240  
 cgggcccagg gttatgcaa ccccttctgg ctggccttgg ccttgetgat agccatgact  
 300  
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 360  
 acgttccgtc accaccgatc cattgtccag ctctatgtgg ctcccgcccc agagaagtcc  
 420  
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 474

<210> 3462

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3462

Met	Ala	Leu	Leu	Glu	Ala	Ser	Ile	Gly	Val	Ala	Gly	Met	Leu	Ala	Ser
1				5				10					15		
Leu	Leu	Gly	Gly	His	Trp	Leu	Arg	Ala	Gln	Gly	Tyr	Ala	Asn	Pro	Phe
		20						25					30		
Trp	Leu	Ala	Leu	Ala	Leu	Leu	Ile	Ala	Met	Thr	Leu	Tyr	Ala	Ala	Phe
		35					40					45			
Cys	Phe	Gly	Glu	Thr	Leu	Lys	Glu	Pro	Lys	Ser	Thr	Arg	Leu	Phe	Thr
	50					55				60					
Phe	Arg	His	His	Arg	Ser	Ile	Val	Gln	Leu	Tyr	Val	Ala	Pro	Ala	Pro
65					70					75				80	
Glu	Lys	Ser	Arg	Lys	His	Leu	Ala	Leu	Tyr	Ser	Leu	Ala	Ile	Phe	Val
				85					90					95	
Val	Ile	Thr	Val	His											
				100											

<210> 3463

<211> 1734

<212> DNA

<213> Homo sapiens

<400> 3463

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 120  
 cagcagcggc agggcaagca ccaccctaatt tatctcatgg ctaatgaacg catgaacctc  
 180  
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 240  
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 360  
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 420  
 cttccaggac ttaagacacc agtaggtaga ggaagagcct ggcttcgttt ggcattaatg  
 480

caaaagaaac ttccagaata tatgaaagct ttgatcaata agaaagaact tctcagtga  
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 600  
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 660  
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 720  
 ggagacggtc agattactgc aattctggac cagaagaact atgtagaaga actgaacaga  
 780  
 catttgaatg ctactgtaaa caaccttcag gcaaaagtag atgcattaga aaaatccaac  
 840  
 actaaactga cagaggagct tgcagttgca aacaacagga tcattacctt acaagaagaa  
 900  
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 960  
 caagacagaa ctgcagaagg gcaagcacta agtgaagcaa gaaagcattt aaaagaagag  
 1020  
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 1080  
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 1734

<210> 3464

<211> 434

<212> PRT

<213> Homo sapiens

<400> 3464

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Leu	Glu	Asp	Pro	Ala	Val	Pro	Arg	Leu	Thr	Ala	Ala	Leu	Pro	Ala	Ala
			20						25				30		
Glu	Leu	Pro	Glu	Arg	Arg	Arg	Arg	Gln	Gln	Arg	Gln	Gly	Lys	His	His

35	40	45
Pro Asn Tyr Leu Met Ala Asn Glu Arg Met Asn Leu Met Asn Met Ala		
50	55	60
Lys Leu Ser Ile Lys Gly Leu Ile Glu Ser Ala Leu Asn Leu Gly Arg		
65	70	75
Thr Leu Asp Ser Asp Tyr Ala Pro Leu Gln Gln Phe Phe Val Val Met		80
85	90	95
Glu His Cys Leu Lys His Gly Leu Lys Ala Lys Lys Thr Phe Leu Gly		
100	105	110
Gln Asn Lys Ser Phe Trp Gly Pro Leu Glu Leu Val Glu Lys Leu Val		
115	120	125
Pro Glu Ala Ala Glu Ile Thr Ala Ser Val Lys Asp Leu Pro Gly Leu		
130	135	140
Lys Thr Pro Val Gly Arg Gly Arg Ala Trp Leu Arg Leu Ala Leu Met		
145	150	155
Gln Lys Lys Leu Ser Glu Tyr Met Lys Ala Leu Ile Asn Lys Lys Glu		
165	170	175
Leu Leu Ser Glu Phe Tyr Glu Pro Asn Ala Leu Met Met Glu Glu Glu		
180	185	190
Gly Ala Ile Ile Ala Gly Leu Leu Val Gly Leu Asn Val Ile Asp Ala		
195	200	205
Asn Phe Cys Met Lys Gly Glu Asp Leu Asp Ser Gln Val Gly Val Ile		
210	215	220
Asp Phe Ser Met Tyr Leu Lys Asp Gly Asn Ser Ser Lys Gly Thr Glu		
225	230	235
Gly Asp Gly Gln Ile Thr Ala Ile Leu Asp Gln Lys Asn Tyr Val Glu		
245	250	255
Glu Leu Asn Arg His Leu Asn Ala Thr Val Asn Asn Leu Gln Ala Lys		
260	265	270
Val Asp Ala Leu Glu Lys Ser Asn Thr Lys Leu Thr Glu Glu Leu Ala		
275	280	285
Val Ala Asn Asn Arg Ile Ile Thr Leu Gln Glu Glu Met Glu Arg Val		
290	295	300
Lys Glu Glu Ser Ser Tyr Ile Leu Glu Ser Asn Arg Lys Gly Pro Lys		
305	310	315
Gln Asp Arg Thr Ala Glu Gly Gln Ala Leu Ser Glu Ala Arg Lys His		
325	330	335
Leu Lys Glu Glu Thr Gln Leu Arg Leu Asp Val Glu Lys Glu Leu Glu		
340	345	350
Met Gln Ile Ser Met Arg Gln Glu Met Glu Leu Ala Met Lys Met Leu		
355	360	365
Glu Lys Asp Val Cys Glu Lys Gln Asp Ala Leu Val Ser Leu Arg Gln		
370	375	380
Gln Leu Asp Asp Leu Arg Ala Leu Lys His Glu Leu Ala Phe Lys Leu		
385	390	395
Gln Ser Ser Asp Leu Gly Val Lys Gln Lys Ser Glu Leu Asn Ser Arg		
405	410	415
Leu Glu Glu Lys Thr Asn Gln Met Ala Ala Thr Ile Lys Gln Leu Glu		
420	425	430
Gln Arg		

&lt;210&gt; 3465

&lt;211&gt; 2904

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3465

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120  
aactggacag acacgcggga gacgctgctg gaggggatgc tgttcagcct caagtacctg  
180  
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240  
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300  
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360  
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900  
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1500



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2880  
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2904

&lt;210&gt; 3466

&lt;211&gt; 315

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3466

Thr Arg Pro Pro Glu Arg Ala Met Asp Ala Leu Lys Ser Ala Gly Arg  
 1 5 10 15  
 Ala Leu Ile Arg Ser Pro Ser Leu Ala Lys Gln Ser Trp Gly Gly Gly  
 20 25 30  
 Gly Arg His Arg Lys Leu Pro Glu Asn Trp Thr Asp Thr Arg Glu Thr  
 35 40 45  
 Leu Leu Glu Gly Met Leu Phe Ser Leu Lys Tyr Leu Gly Met Thr Leu  
 50 55 60  
 Val Glu Gln Pro Lys Gly Glu Glu Leu Ser Ala Ala Ile Lys Arg  
 65 70 75 80  
 Ile Val Ala Thr Ala Lys Ala Ser Gly Lys Lys Leu Gln Lys Val Thr  
 85 90 95  
 Leu Lys Val Ser Pro Arg Gly Ile Ile Leu Thr Asp Asn Leu Thr Asn  
 100 105 110  
 Gln Leu Ile Glu Asn Val Ser Ile Tyr Arg Ile Ser Tyr Cys Thr Ala  
 115 120 125  
 Asp Lys Met His Asp Lys Val Phe Ala Tyr Ile Ala Gln Ser Gln His  
 130 135 140  
 Asn Gln Ser Leu Glu Cys His Ala Phe Leu Cys Thr Lys Arg Lys Met  
 145 150 155 160  
 Ala Gln Ala Val Thr Leu Thr Val Ala Gln Ala Phe Lys Val Ala Phe  
 165 170 175  
 Glu Phe Trp Gln Val Ser Lys Glu Glu Lys Glu Lys Arg Asp Lys Ala  
 180 185 190  
 Ser Gln Glu Gly Gly Asp Val Leu Gly Ala Arg Gln Asp Cys Thr Pro  
 195 200 205  
 Pro Leu Lys Ser Leu Val Ala Thr Gly Asn Leu Leu Asp Leu Glu Glu  
 210 215 220  
 Thr Ala Lys Ala Pro Leu Ser Thr Val Ser Ala Asn Thr Thr Asn Met  
 225 230 235 240  
 Asp Glu Val Pro Arg Pro Gln Ala Leu Ser Gly Ser Ser Val Val Trp  
 245 250 255  
 Glu Leu Asp Asp Gly Leu Asp Glu Ala Phe Ser Arg Leu Ala Gln Ser  
 260 265 270  
 Arg Thr Asn Pro Gln Val Leu Asp Thr Gly Leu Thr Ala Gln Asp Met  
 275 280 285  
 His Tyr Ala Gln Cys Leu Ser Pro Val Asp Trp Asp Lys Pro Asp Ser  
 290 295 300  
 Ser Gly Thr Glu Gln Asp Asp Leu Phe Ser Phe  
 305 310 315

&lt;210&gt; 3467

&lt;211&gt; 638

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3467

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 120  
 ggtctgaggt gaaggtccta ggagcatcag ttctctgttg ggatcaaggt tgctgggaca  
 180

gagcttgatc cctgtcaact gctaaaacaa tccaggacaa tccaatagta gagctgaatt  
 240  
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 300  
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 360  
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 420  
 accaacgttt cctccctgtg gagccaagaa gacagggaca tgaccggagc ttgaggggag  
 480  
 gaacgctttc agaaggggaag ggtccattat cctggaagat ctggtgctga aacctgccat  
 540  
 tccacacctt accataaatg gccaaagtta aagccctcct attgaaacct gcccgccagc  
 600  
 acttctgtgt gccaacctgt cctccctaac ccgtcgac  
 638

&lt;210&gt; 3468

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3468

Met	Ser	Leu	Ser	Ser	Trp	Leu	His	Arg	Glu	Glu	Thr	Leu	Val	Pro	Ser
1				5					10					15	
Tyr	Asp	Phe	Pro	Pro	Leu	Cys	Met	Ser	Gly	Leu	His	Asp	Phe	Gln	Phe
			20					25					30		
Trp	Leu	Cys	Tyr	Thr	Ser	Cys	Tyr	Gln	Gln	Asn	Arg	Val	Ser	Leu	Gly
		35				40					45				
Gln	Ser	Cys	Gly	Tyr	Thr	Ser	Val	Ser	Gln	Asp	Phe	Leu	Cys	Gln	Arg
	50				55					60					
Ala	Val	Lys	Leu	Arg	Thr	Lys	Val	Ile	Lys	Ile	Gln	Leu	Tyr	Tyr	Trp
65				70				75						80	
Ile	Val	Leu	Asp	Cys	Phe	Ser	Ser								
				85											

&lt;210&gt; 3469

&lt;211&gt; 1710

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3469

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 ccgctgctgt gggccccggc tgcgggtccgg gccggcccag atgaagacct tagccaccgg  
 120  
 aacaaagaac cgccggcgcc ggcccagcag ctgcagccgc agcctgtggc tgtgcagggc  
 180  
 cccgagccgg cccgggtcga gaaaatattt acaccagcag ctccagttca taccaataaa  
 240  
 gaagatcctg ctacccaaac taatttggga tttatccatg catttgtcgc tgccatatca  
 300  
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 360

cgetataacc gcctgaccgt gctggctggt gcaatgcttg ccttgggact aatgacatgc  
420  
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480  
tcaactgtat tatttgecat ttttggcatt agaatgcttc gggaaggctt aaagatgagc  
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600  
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720  
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780  
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840  
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900  
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960  
ggtttttaac aagctgtttg ttcacttata tttagttaa aataggtagt attatctttc  
1020  
tgtacatagt gtacattaca actaaaagta atgggaaaca ctgtattttg tagcattgat  
1080  
ttgtaagttt gaccactta attattatgc ccaaagata taatcattga ttttatttgt  
1140  
aaagattttt aaaaaggttt gactcctaag tgtgggtttt tcttctctcc aacataatta  
1200  
tgttaatatg gtcttcattt ttcttttggg gcagaaccgt tgtgcagtgg ggtctaccat  
1260  
gcaattttct ttcagcactg accccttttt aaggaataca aattttctcc ttcactactt  
1320  
agggtgttta agatgtttac cttaaagtgt ttcttgggga aagaatgaat taatttctat  
1380  
ttcttaaaac atttcctga gccagtaaac agtagtttaa tcattggtct tttcaaaact  
1440  
agggtgttta aaaaagagac atatatgata ttgctgttat atcaataaca tggcacaaca  
1500  
agaactgtct gccaggctcat tcttctctt ttttttttaa ttgggttagga caccaatat  
1560  
aaaaacagtc aatatttgac aatgtggaat taccaaatta aaagagaata ctatgaatgt  
1620  
attcatattt tttctatatt gaataaaca tgtaacatag ataacaatat aaataaaagt  
1680  
ggtatgacca gtgaaaaaaaa aaaaaaaaaa  
1710

&lt;210&gt; 3470

&lt;211&gt; 322

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3470

Ala Ala Ala Pro Gly Asn Gly Arg Ala Ser Ala Pro Arg Leu Leu Leu

```

      1           5           10           15
Leu Phe Leu Val Pro Leu Leu Trp Ala Pro Ala Ala Val Arg Ala Gly
      20           25           30
Pro Asp Glu Asp Leu Ser His Arg Asn Lys Glu Pro Pro Ala Pro Ala
      35           40           45
Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala
      50           55           60
Arg Val Glu Lys Ile Phe Thr Pro Ala Ala Pro Val His Thr Asn Lys
      65           70           75           80
Glu Asp Pro Ala Thr Gln Thr Asn Leu Gly Phe Ile His Ala Phe Val
      85           90           95
Ala Ala Ile Ser Val Ile Ile Val Ser Glu Leu Gly Asp Lys Thr Phe
      100          105          110
Phe Ile Ala Ala Ile Met Ala Met Arg Tyr Asn Arg Leu Thr Val Leu
      115          120          125
Ala Gly Ala Met Leu Ala Leu Gly Leu Met Thr Cys Leu Ser Val Leu
      130          135          140
Phe Gly Tyr Ala Thr Thr Val Ile Pro Arg Val Tyr Thr Tyr Tyr Val
      145          150          155          160
Ser Thr Val Leu Phe Ala Ile Phe Gly Ile Arg Met Leu Arg Glu Gly
      165          170          175
Leu Lys Met Ser Pro Asp Glu Gly Gln Glu Glu Leu Glu Glu Val Gln
      180          185          190
Ala Glu Leu Lys Lys Lys Asp Glu Glu Phe Gln Arg Thr Lys Leu Leu
      195          200          205
Asn Gly Pro Gly Asp Val Glu Thr Gly Thr Ser Ile Thr Val Pro Gln
      210          215          220
Lys Lys Trp Leu His Phe Ile Ser Pro Ile Phe Val Gln Ala Leu Thr
      225          230          235          240
Leu Thr Phe Leu Ala Glu Trp Gly Asp Arg Ser Gln Leu Thr Thr Ile
      245          250          255
Val Leu Ala Ala Arg Glu Asp Pro Tyr Gly Val Ala Val Gly Gly Thr
      260          265          270
Val Gly His Cys Leu Cys Thr Gly Leu Ala Val Ile Gly Gly Arg Met
      275          280          285
Ile Ala Gln Lys Ile Ser Val Arg Thr Val Thr Ile Ile Gly Gly Ile
      290          295          300
Val Phe Leu Ala Phe Ala Phe Ser Ala Leu Phe Ile Ser Pro Asp Ser
      305          310          315          320
Gly Phe

```

&lt;210&gt; 3471

&lt;211&gt; 2335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3471

ggcgcgtgg ccctggccga catcgccctc accggcgggcg gcaacatcgt ggtggccacg  
60

gcggacggca gcagcgcgtc gcccgtagcag ttctacaagg tgtgcgtgag cgtggtagc  
120

gagaagtgcc gtatcgacac ggagatcccg cctccctgt tcatgcgctg caccaccgac  
180

ctcaaccgca aggacaagtt ccccgccatc acccacctca agttcctggc ccgggacatg  
240  
tcggagcagg tgctttttgtg cgcgtccagc cagaccagca gcacgtgga gtgctgggcc  
300  
ctgcgcaagg agggactccc cgtgaacaac atcttccagc agatctcccc cgtggttgge  
360  
gacaaacagc ccacaattct caaatggcgg atcctatcgg ccaccaacga tctggaccgt  
420  
gtgtcggccg tggcgctgcc caagctgccc atctcgctca ccaacaccga cctcaagggtg  
480  
gccagcgaca cacagttcta ccttggcctc gggctggccc tggccttcca cgacggcagc  
540  
gtccacatcg tgcaccggct ctactgcag accatggccg tcttctacag ctcccgggcc  
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720  
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780  
ctgcggcacc tgctcttctt gctggagtac tgcattgga ccggctacga ctggtgggac  
840  
atctgctgc acgtgcagcc cagtatggtc cagagcctgg tggagaagct gcacgaggag  
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tacacgcgcc agaccgctgc cctgcagcag gtcctctcca cccggatcct ggccatgaag  
960  
gcctcgctct gcaagctgtc gccctgcacg gtgaccgcgg tgtgcgacta ccacaccaag  
1020  
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1080  
acgctgaca agagccccgg cgaccggctg accgagatct gcaccaagat caccgacgtc  
1140  
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1200  
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1260  
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1320  
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1380  
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1440  
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1620  
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1680  
gccaggggcc caggccagcc caagatcgac cacctcgga ggctgcacct tggcgcttgc  
1740  
cccacggagg aatgcaaggc ctgcaccagg tgcggctgtg tcacctgct caagtcgccc  
1800

aacagaacca cggcgggtgaa gcagtgggag cagcgctgga tcaagaactg cctgtgcggg  
 1860  
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 1920  
 tcagctaccc ctcagctgcc cctgagcccg gctgctgcaa gageccaccg tcgccctgga  
 1980  
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 2040  
 acgctgcgt gaccagcaga gcttctgagg aagcccctgc ccttgtccag ctgggcccgc  
 2100  
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 2160  
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 2220  
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 2280  
 ggtccaataa acgcccctcg cgcccaggaa aaaaaaaaaa aaaaaaaaaa aaaaa  
 2335

<210> 3472

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3472

Gly	Arg	Val	Ala	Leu	Ala	Asp	Ile	Ala	Phe	Thr	Gly	Gly	Gly	Asn	Ile
1				5				10						15	
Val	Val	Ala	Thr	Ala	Asp	Gly	Ser	Ser	Ala	Ser	Pro	Val	Gln	Phe	Tyr
		20					25					30			
Lys	Val	Cys	Val	Ser	Val	Val	Ser	Glu	Lys	Cys	Arg	Ile	Asp	Thr	Glu
		35					40					45			
Ile	Leu	Pro	Ser	Leu	Phe	Met	Arg	Cys	Thr	Thr	Asp	Leu	Asn	Arg	Lys
	50					55					60				
Asp	Lys	Phe	Pro	Ala	Ile	Thr	His	Leu	Lys	Phe	Leu	Ala	Arg	Asp	Met
65					70					75				80	
Ser	Glu	Gln	Val	Leu	Leu	Cys	Ala	Ser	Ser	Gln	Thr	Ser	Ser	Ile	Val
			85					90						95	
Glu	Cys	Trp	Ser	Leu	Arg	Lys	Glu	Gly	Leu	Pro	Val	Asn	Asn	Ile	Phe
			100					105						110	
Gln	Gln	Ile	Ser	Pro	Val	Val	Gly	Asp	Lys	Gln	Pro	Thr	Ile	Leu	Lys
		115					120					125			
Trp	Arg	Ile	Leu	Ser	Ala	Thr	Asn	Asp	Leu	Asp	Arg	Val	Ser	Ala	Val
		130				135					140				
Ala	Leu	Pro	Lys	Leu	Pro	Ile	Ser	Leu	Thr	Asn	Thr	Asp	Leu	Lys	Val
145					150					155				160	
Ala	Ser	Asp	Thr	Gln	Phe	Tyr	Pro	Gly	Leu	Gly	Leu	Ala	Leu	Ala	Phe
				165					170					175	
His	Asp	Gly	Ser	Val	His	Ile	Val	His	Arg	Leu	Ser	Leu	Gln	Thr	Met
			180					185					190		
Ala	Val	Phe	Tyr	Ser	Ser	Ala	Ala	Pro	Arg	Pro	Val	Asp	Glu	Pro	Ala
			195				200					205			
Met	Lys	Arg	Pro	Arg	Thr	Ala	Gly	Pro	Ala	Val	His	Leu	Lys	Ala	Met
	210					215					220				
Gln	Leu	Ser	Trp	Thr	Ser	Leu	Ala	Leu	Val	Gly	Ile	Asp	Ser	His	Gly

```

225          230          235          240
Lys Leu Ser Val Leu Arg Leu Ser Pro Ser Met Gly His Pro Leu Glu
          245          250          255
Val Gly Leu Ala Leu Arg His Leu Leu Phe Leu Leu Glu Tyr Cys Met
          260          265          270
Val Thr Gly Tyr Asp Trp Trp Asp Ile Leu Leu His Val Gln Pro Ser
          275          280          285
Met Val Gln Ser Leu Val Glu Lys Leu His Glu Glu Tyr Thr Arg Gln
          290          295          300
Thr Ala Ala Leu Gln Gln Val Leu Ser Thr Arg Ile Leu Ala Met Lys
305          310          315          320
Ala Ser Leu Cys Lys Leu Ser Pro Cys Thr Val Thr Arg Val Cys Asp
          325          330          335
Tyr His Thr Lys Leu Phe Leu Ile Ala Ile Ser Ser Thr Leu Lys Ser
          340          345          350
Leu Leu Arg Pro His Phe Leu Asn Thr Pro Asp Lys Ser Pro Gly Asp
          355          360          365
Arg Leu Thr Glu Ile Cys Thr Lys Ile Thr Asp Val Asp Ile Asp Lys
          370          375          380
Val Met Ile Asn Leu Lys Thr Glu Glu Phe Val Leu Asp Met Asn Thr
385          390          395          400
Leu Gln Ala Leu Gln Gln Leu Leu Gln Trp Val Gly Asp Phe Val Leu
          405          410          415
Tyr Leu Leu Ala Ser Leu Pro Asn Gln Gly Ser Leu Leu Arg Pro Gly
          420          425          430
His Ser Phe Leu Arg Asp Gly Thr Ser Leu Gly Met Leu Arg Glu Leu
          435          440          445
Met Val Val Ile Arg Ile Trp Gly Leu Leu Lys Pro Ser Cys Leu Pro
          450          455          460
Val Tyr Thr Ala Thr Ser Asp Thr Gln Asp Ser Met Ser Leu Leu Phe
465          470          475          480
Arg Leu Leu Thr Lys Leu Trp Ile Cys Cys Arg Asp Glu Gly Pro Ala
          485          490          495
Ser Glu Pro Asp Glu Ala Leu Val Asp Glu Cys Cys Leu Leu Pro Ser
          500          505          510
Gln Leu Leu Ile Pro Ser Leu Asp Trp Leu Pro Ala Ser Asp Gly Leu
          515          520          525
Val Ser Arg Leu Gln Pro Lys Gln Pro Leu Arg Leu Gln Phe Gly Arg
          530          535          540
Ala Pro Thr Leu Pro Gly Ser Ala Ala Thr Leu Gln Leu Asp Gly Leu
545          550          555          560
Ala Arg Ala Pro Gly Gln Pro Lys Ile Asp His Leu Arg Arg Leu His
          565          570          575
Leu Gly Ala Cys Pro Thr Glu Glu Cys Lys Ala Cys Thr Arg Cys Gly
          580          585          590
Cys Val Thr Met Leu Lys Ser Pro Asn Arg Thr Thr Ala Val Lys Gln
          595          600          605
Trp Glu Gln Arg Trp Ile Lys Asn Cys Leu Cys Gly Gly Leu Trp Trp
          610          615          620
Arg Val Pro Leu Ser Tyr Pro
625          630

```

&lt;210&gt; 3473

&lt;211&gt; 1660



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3473

taatgtgccc ccttagaagg acgtgtttct tggtttcaca cgtttgagtc tatgcaccag  
60  
ctggattttc acaaaggggt ctgaaccttg gctgttggtg agggcaaagt gggcgtggcg  
120  
gcgccatgcc cgggccggac tgagtgcgcg cgggcgagaa tggcgtacat ccagttggaa  
180  
ccattaaacg agggttttct ttctagaatc tctggtctgc tgetgtgcag atggacctgc  
240  
cggcactgct gtcagaagtg ctacgagtcc agctgttgcc agtcaagtga ggatgaagtt  
300  
gaaattcttg gacctttccc tgctcagacc cctccctggc tgatggccag ccggagcagt  
360  
gacaaggatg gtgactctgt ccacacggcc agcgaagtc cgctgacccc acggaccaat  
420  
tccccggatg gaagacgctc gtcctcagac acatccaagt ctacatacag cctgacgcgg  
480  
aggatttcga gtcttgagtc aagacgtccc agctctccac tcatcgatat taaaccatc  
540  
gagtttggtg ttctcagcgc caagaaggag cccatccaac cttcggtgct cagacggacc  
600  
tataaccccg acgactatct caggaagttc gaacccacc tgtactccct cgactccaac  
660  
agcgacgatg tggactctct gacagacgag gagatcctgt ccaagtacca gctgggcatg  
720  
ctgcacttca gcactcagta cgacctgctg cacaaccacc tcaccgtgcg cgtgatcgag  
780  
gccaggggacc tgccacctcc catctccacc gatggtctgc gccaggacat ggcgactcc  
840  
aaccctacg tcaagatctg tctctgcca gaccagaaga actcaaagca gaccggggtc  
900  
aaacgcaaga cccagaagcc cgtgtttgag gagcgctaca ccttcgagat ccccttctg  
960  
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1020  
tgtgtcattg ggaaagtctt tgtgcctttg tgtgaagttg acctgggtcaa gggcgggcac  
1080  
tgggtggaag cgctgattcc cagttctcag aatgaagtgg agctggggga gctgcttctg  
1140  
tcactgaatt atctcccaag tgctggcaga ctgaatgttg atgtcattcg agccaagcaa  
1200  
cttcttcaga cagatgagag ccaaggttca gacccctttg tgaaaatcca gctgggtgcat  
1260  
ggactcaaac ttgtgaaaac caagaagacg tccttcttaa ggggcacaaat tgatccttct  
1320  
tacaatgaat ccttcagctt caaagttccc caagaagaac tggaaaatgc cagcctagtg  
1380  
tttacagttt tcggccacaa catgaagagc agcaatgact tcatcgggag gatcgtcatt  
1440  
ggccagtact cttcaggccc ctctgagacc aaccactgga ggcgcatgct caacacgcac  
1500

cgcacagccg tggagcagtg gcatagcctg aggtcccag ctgagtgtga ccgcgtgtct  
 1560  
 cctgcctccc tggaggtgac ctgagggctg caggggaaggc agctttcatt tgtttaaaaa  
 1620  
 aaaaaagacg gaaaaaatg tgtcacatac tattacatcc  
 1660

<210> 3474

<211> 474

<212> PRT

<213> Homo sapiens

<400> 3474

Met	Ala	Tyr	Ile	Gln	Leu	Glu	Pro	Leu	Asn	Glu	Gly	Phe	Leu	Ser	Arg
1				5					10					15	
Ile	Ser	Gly	Leu	Leu	Leu	Cys	Arg	Trp	Thr	Cys	Arg	His	Cys	Cys	Gln
			20					25					30		
Lys	Cys	Tyr	Glu	Ser	Ser	Cys	Cys	Gln	Ser	Ser	Glu	Asp	Glu	Val	Glu
		35					40					45			
Ile	Leu	Gly	Pro	Phe	Pro	Ala	Gln	Thr	Pro	Pro	Trp	Leu	Met	Ala	Ser
	50					55					60				
Arg	Ser	Ser	Asp	Lys	Asp	Gly	Asp	Ser	Val	His	Thr	Ala	Ser	Glu	Val
65				70					75					80	
Pro	Leu	Thr	Pro	Arg	Thr	Asn	Ser	Pro	Asp	Gly	Arg	Arg	Ser	Ser	Ser
				85				90						95	
Asp	Thr	Ser	Lys	Ser	Thr	Tyr	Ser	Leu	Thr	Arg	Arg	Ile	Ser	Ser	Leu
			100					105					110		
Glu	Ser	Arg	Arg	Pro	Ser	Ser	Pro	Leu	Ile	Asp	Ile	Lys	Pro	Ile	Glu
		115					120					125			
Phe	Gly	Val	Leu	Ser	Ala	Lys	Lys	Glu	Pro	Ile	Gln	Pro	Ser	Val	Leu
	130					135					140				
Arg	Arg	Thr	Tyr	Asn	Pro	Asp	Asp	Tyr	Phe	Arg	Lys	Phe	Glu	Pro	His
145				150					155					160	
Leu	Tyr	Ser	Leu	Asp	Ser	Asn	Ser	Asp	Asp	Val	Asp	Ser	Leu	Thr	Asp
			165					170						175	
Glu	Glu	Ile	Leu	Ser	Lys	Tyr	Gln	Leu	Gly	Met	Leu	His	Phe	Ser	Thr
		180						185					190		
Gln	Tyr	Asp	Leu	Leu	His	Asn	His	Leu	Thr	Val	Arg	Val	Ile	Glu	Ala
	195						200					205			
Arg	Asp	Leu	Pro	Pro	Pro	Ile	Ser	His	Asp	Gly	Ser	Arg	Gln	Asp	Met
	210					215					220				
Ala	His	Ser	Asn	Pro	Tyr	Val	Lys	Ile	Cys	Leu	Leu	Pro	Asp	Gln	Lys
225				230					235					240	
Asn	Ser	Lys	Gln	Thr	Gly	Val	Lys	Arg	Lys	Thr	Gln	Lys	Pro	Val	Phe
			245					250						255	
Glu	Glu	Arg	Tyr	Thr	Phe	Glu	Ile	Pro	Phe	Leu	Glu	Ala	Gln	Arg	Arg
		260						265					270		
Thr	Leu	Leu	Leu	Thr	Val	Val	Asp	Phe	Asp	Lys	Phe	Ser	Arg	His	Cys
		275					280					285			
Val	Ile	Gly	Lys	Val	Ser	Val	Pro	Leu	Cys	Glu	Val	Asp	Leu	Val	Lys
	290					295					300				
Gly	Gly	His	Trp	Trp	Lys	Ala	Leu	Ile	Pro	Ser	Ser	Gln	Asn	Glu	Val
305					310					315				320	
Glu	Leu	Gly	Glu	Leu	Leu	Leu	Ser	Leu	Asn	Tyr	Leu	Pro	Ser	Ala	Gly

```

          325          330          335
Arg Leu Asn Val Asp Val Ile Arg Ala Lys Gln Leu Leu Gln Thr Asp
          340          345          350
Val Ser Gln Gly Ser Asp Pro Phe Val Lys Ile Gln Leu Val His Gly
          355          360          365
Leu Lys Leu Val Lys Thr Lys Lys Thr Ser Phe Leu Arg Gly Thr Ile
          370          375          380
Asp Pro Phe Tyr Asn Glu Ser Phe Ser Phe Lys Val Pro Gln Glu Glu
385          390          395          400
Leu Glu Asn Ala Ser Leu Val Phe Thr Val Phe Gly His Asn Met Lys
          405          410          415
Ser Ser Asn Asp Phe Ile Gly Arg Ile Val Ile Gly Gln Tyr Ser Ser
          420          425          430
Gly Pro Ser Glu Thr Asn His Trp Arg Arg Met Leu Asn Thr His Arg
          435          440          445
Thr Ala Val Glu Gln Trp His Ser Leu Arg Ser Arg Ala Glu Cys Asp
          450          455          460
Arg Val Ser Pro Ala Ser Leu Glu Val Thr
465          470

```

&lt;210&gt; 3475

&lt;211&gt; 514

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3475

```

acgcgtcttg agggctggtt cttctgcacg cccgcccga agctgctctg gctggtgctg
60
cagcccttct tctactcact acggccgctc tgcgtccacc ccaaggccgt gacccgcatg
120
gaggtgctca acacgctggt gcagctggcg gccgacctgg ccatctttgc cctttggggg
180
ctcaagcccg tggctctacct gctggccagc tccttcctgg gcctgggect gcaccccatc
240
tcggggcact tcgtggccga gcactacatg ttcttcaagg gccacgagac ctactcctac
300
tatgggcttc tcaactggat caccttcaat gtgggctacc acgtggagca ccacgacttc
360
cccagcatcc cgggctacaa cctgccgctg gtgcggaaga tcgcgcccga gtactacgac
420
cacctgccgc agcaccactc ctgggtgaag gtgctctggg attttgtgtt tgaggactcc
480
ctggggccct atgccagggt gaagcgggtg taca
514

```

&lt;210&gt; 3476

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3476

```

Thr Arg Leu Glu Gly Trp Phe Phe Cys Thr Pro Ala Arg Lys Leu Leu
1          5          10          15
Trp Leu Val Leu Gln Pro Phe Phe Tyr Ser Leu Arg Pro Leu Cys Val

```

```

                20                25                30
His Pro Lys Ala Val Thr Arg Met Glu Val Leu Asn Thr Leu Val Gln
   35                40                45
Leu Ala Ala Asp Leu Ala Ile Phe Ala Leu Trp Gly Leu Lys Pro Val
   50                55                60
Val Tyr Leu Leu Ala Ser Ser Phe Leu Gly Leu Gly Leu His Pro Ile
  65                70                75                80
Ser Gly His Phe Val Ala Glu His Tyr Met Phe Leu Lys Gly His Glu
                85                90                95
Thr Tyr Ser Tyr Tyr Gly Pro Leu Asn Trp Ile Thr Phe Asn Val Gly
   100                105                110
Tyr His Val Glu His His Asp Phe Pro Ser Ile Pro Gly Tyr Asn Leu
   115                120                125
Pro Leu Val Arg Lys Ile Ala Pro Glu Tyr Tyr Asp His Leu Pro Gln
   130                135                140
His His Ser Trp Val Lys Val Leu Trp Asp Phe Val Phe Glu Asp Ser
  145                150                155                160
Leu Gly Pro Tyr Ala Arg Val Lys Arg Val Tyr
                165                170

```

&lt;210&gt; 3477

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3477

```

gcgcgcctcg gctgcctgcc cggcgggtctc cgggtcctcg tccagaccgg ccaccggagc
60
ttgacctcct gcacgcaccc ttccatggga cttaatgaag agcagaaaga atttcaaaaa
120
gtggcctttg actttgctgc ccgagagatg gctccaaata tggcagagtg ggaccagaag
180
gtaggcggtt ttcttgctgt tagacgttct aacaacagat gtctcaggca gacctttatc
240
tttgtctccc gataatgtaa ttgttaaatg tctcctccac ttaccaactc ttactgcaag
300
tgagaatacc ggtagtggat gatttttcct agaaggcatc ctgatcatct tgtaca
356

```

&lt;210&gt; 3478

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3478

```

Met Ile Arg Met Pro Ser Arg Lys Asn His Pro Leu Pro Val Phe Ser
  1                5                10                15
Leu Ala Val Arg Val Gly Lys Trp Arg Arg His Leu Thr Ile Thr Leu
   20                25                30
Ser Gly Asp Lys Asp Lys Gly Leu Pro Glu Thr Ser Val Val Arg Thr
   35                40                45
Ser Lys His Lys Lys Asn Ala Tyr Leu Leu Val Pro Leu Cys His Ile
   50                55                60
Trp Ser His Leu Ser Gly Ser Lys Val Lys Gly His Phe Leu Lys Phe

```

```

65          70          75          80
Phe Leu Leu Phe Ile Lys Ser His Gly Arg Val Asp Ala Gly Gly Gln
          85          90          95
Ala Pro Val Ala Gly Leu Asp Glu Asp Pro Glu Thr Ala Gly Gln Ala
          100          105          110
Ala Glu Ala Arg
          115

```

&lt;210&gt; 3479

&lt;211&gt; 797

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3479

```

nctttccaac ccagcctgaa ggggaaagcc acctcggagg acaccctcaa tctaaggaga
60
taccctggct ctgacaggat catgctgcag aagtggcaga aaagggacat cagcaatttt
120
gagtatctca tgtacctcaa caccgaggct gggagaacct gcaatgacta catgcagtac
180
ccagtgttcc cctgggtcct cgcagactac acctcagaga cattgaactt ggcaaaccg
240
aagattttcc gggatctttc aaagcccatg ggggctcaga ccaaggaaag gaagctgaaa
300
tttatccaga ggttttaaaga agttgagaaa actgaaggag acatgactgc ccagtgccac
360
tactacacc actactctc ggccatcatc gtggcctcct acctgggtccg gatgccaccc
420
ttcaccagc cttctgcgc tctgcaggtg agctgctgcc actctctgta cacacacaca
480
cacacacaca cacacacata cgctgtatc acaagactaa gacctgtgct tgaacaaaga
540
caggatgcct ctgctaaaaa cttagtcatt agccagtgat tcccagttga cattgggtcc
600
aggattctgg ctcaccagcc aaggcaggct gttcttctc agttacacct gcacatctgc
660
ccaacaaagt cttgcaaaat gattctaaaa aataagaaat gagacatgaa aaaaatgatt
720
taacataaat aagatttagt ggaaaaagaa aaagcaggaa acttgagagac tagaaaggca
780
ggcgggtcaag gattaga
797

```

&lt;210&gt; 3480

&lt;211&gt; 192

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3480

```

Xaa Phe Gln Pro Ser Leu Lys Gly Lys Ala Thr Ser Glu Asp Thr Leu
  1          5          10          15
Asn Leu Arg Arg Tyr Pro Gly Ser Asp Arg Ile Met Leu Gln Lys Trp
          20          25          30
Gln Lys Arg Asp Ile Ser Asn Phe Glu Tyr Leu Met Tyr Leu Asn Thr

```

			35					40				45				
Ala	Ala	Gly	Arg	Thr	Cys	Asn	Asp	Tyr	Met	Gln	Tyr	Pro	Val	Phe	Pro	
	50					55					60					
Trp	Val	Leu	Ala	Asp	Tyr	Thr	Ser	Glu	Thr	Leu	Asn	Leu	Ala	Asn	Pro	
65					70					75					80	
Lys	Ile	Phe	Arg	Asp	Leu	Ser	Lys	Pro	Met	Gly	Ala	Gln	Thr	Lys	Glu	
				85					90					95		
Arg	Lys	Leu	Lys	Phe	Ile	Gln	Arg	Phe	Lys	Glu	Val	Glu	Lys	Thr	Glu	
				100					105					110		
Gly	Asp	Met	Thr	Ala	Gln	Cys	His	Tyr	Tyr	Thr	His	Tyr	Ser	Ser	Ala	
		115					120					125				
Ile	Ile	Val	Ala	Ser	Tyr	Leu	Val	Arg	Met	Pro	Pro	Phe	Thr	Gln	Ala	
	130					135					140					
Phe	Cys	Ala	Leu	Gln	Val	Ser	Cys	Cys	His	Ser	Leu	Tyr	Thr	His	Thr	
145					150					155					160	
His	Thr	His	Thr	His	Thr	Tyr	Ala	Cys	Ile	Thr	Arg	Leu	Arg	Pro	Val	
				165					170					175		
Leu	Glu	Gln	Arg	Gln	Asp	Ala	Ser	Ala	Lys	Asn	Leu	Val	Ile	Ser	Gln	
			180					185					190			

<210> 3481

&lt;211&gt; 1794

<212> DNA

<213> Homo sapiens

<400> 3481

nncaacgtgg	tcaccacctc	acgaactata	agaagcgtgt	ggcagccttg	gaagccacgc
60	aaaagcccag	cacttcccag	agccaggggac	tgacacaaca	gaaagtctgc
120	atgaggtcct	gaccagaggg	tcttctgcc	atgcctccaa	gtggtcacca
180	gcagaccctg	cggtgctggg	agccaccatg	gagagtaggt	gctacggctg
240	ttcacctct	tcaagaagga	gtacggctgt	agaattgtg	gcaggngctt
300	tgctaagct	tcagtgcagc	agtgcctcgg	actgggaaca	cccaacagaa
360	caatgccatg	aggtcctgac	cagaggggtc	tctgccaatg	cctccaagtg
420	cagaactata	agaagcgtgt	ggcagccttg	gaagccaagc	aaaagcccag
480	agccaggggac	tgacacgaca	agaccagatg	attgctgagc	gcctagcacg
540	gagaacaagc	ccaagttagt	cccctcacag	gcagagatag	aggcacggct
600	aaggatgaac	gtcaggggtc	catcctcttc	ccccaggaaa	tggaggcacg
660	ttgcagggca	gagttctacc	ttctcaaacc	ccccagcccg	gcacatcaca
720	caggacccaa	gcccagcaga	cacaggatct	gctaacgcag	ctggcagctg
780	cgatgaaagc	tggaaaggag	gaggcccagc	tgctctcttc	cagaatgatc
840					tcaaccaggg

tggcccaggg agcactaatt ccaagaggca ggcacttgg ttcttgaga aggagaagag  
 900  
 cagactgctg gctgaggcag cacttgagtt gcgggaggag aacacgaggc aggaacggat  
 960  
 tctggccctg gccaaagcgac tagccatgct gcggggacag gaccccagaga gactgaccct  
 1020  
 ccaggactat cgcctcccag acagtgatga cgacgaggat gaggagacag ccatccaaag  
 1080  
 agtcctgcag cagctcactg aagaagcttc cctggatgag gcaagtggct ttaacatccc  
 1140  
 tgcagagcag gcttctcgac cctggacgca accccgcggg gcagagcctg agggccagga  
 1200  
 tgtggacccc aggcctgagg ctgaggaaga ggagctcccc tgggtgctgca tctgcaatga  
 1260  
 ggatgccacc ctacgctgag ctggctgcga tggggacctc ttctgtgccc gctgcttccg  
 1320  
 agagggccat gatgcctttg agcttaaaga gcaccagaca tctgectact ctctccacg  
 1380  
 tgcaggccaa gagcactgaa gacaccctgg tcctcccgga agggcagtcc cacaggcagc  
 1440  
 ggcacccatt tctgggcccc gccacaggac gtccgatggg agagcttgct tggctctact  
 1500  
 gatgatggat agggcccttc ctgagccttg gtgtccctgg aatgaggaaa gattctccat  
 1560  
 tgcagagaaat gactgggagg gaagaagtcg gggccctcct attagaagcc cagactggaa  
 1620  
 gtgagaggca tgatggggag agaccagact gaatctacgg gtgagccctg taacctggct  
 1680  
 ctagggcaca gggccctccc ctggcactta gtgggtctaa taaagtatgt tgattcattg  
 1740  
 ggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa  
 1794

&lt;210&gt; 3482

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3482

Met	Pro	Pro	Ser	Gly	His	His	Leu	Ser	Ser	Ala	Asp	Pro	Ala	Val	Leu
1				5				10					15		
Gly	Ala	Thr	Met	Glu	Ser	Arg	Cys	Tyr	Gly	Cys	Ala	Val	Lys	Phe	Thr
			20					25					30		
Leu	Phe	Lys	Lys	Glu	Tyr	Gly	Cys	Lys	Asn	Cys	Gly	Arg	Xaa	Phe	Cys
		35					40					45			
Ser	Gly	Cys	Leu	Ser	Phe	Ser	Ala	Ala	Val	Pro	Arg	Thr	Gly	Asn	Thr
		50				55				60					
Gln	Gln	Lys	Val	Cys	Lys	Gln	Cys	His	Glu	Val	Leu	Thr	Arg	Gly	Ser
65					70					75				80	
Ser	Ala	Asn	Ala	Ser	Lys	Trp	Ser	Pro	Pro	Gln	Asn	Tyr	Lys	Lys	Arg
			85					90						95	
Val	Ala	Ala	Leu	Glu	Ala	Lys	Gln	Lys	Pro	Ser	Thr	Ser	Gln	Ser	Gln
			100					105					110		
Gly	Leu	Thr	Arg	Gln	Asp	Gln	Met	Ile	Ala	Glu	Arg	Leu	Ala	Arg	Leu

```

      115              120              125
Arg  Gln  Glu  Asn  Lys  Pro  Lys  Leu  Val  Pro  Ser  Gln  Ala  Glu  Ile  Glu
      130              135              140
Ala  Arg  Leu  Ala  Ala  Leu  Lys  Asp  Glu  Arg  Gln  Gly  Ser  Ile  Pro  Ser
145              150              155              160
Thr  Gln  Glu  Met  Glu  Ala  Arg  Leu  Ala  Ala  Leu  Gln  Gly  Arg  Val  Leu
      165              170              175
Pro  Ser  Gln  Thr  Pro  Gln  Pro  Gly  Thr  Ser  His  Thr  Gly  His  Gln  Asp
      180              185              190
Pro  Ser  Pro  Ala  Asp  Thr  Gly  Ser  Ala  Asn  Ala  Ala  Gly  Ser
      195              200              205

```

&lt;210&gt; 3483

&lt;211&gt; 477

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3483

```

ncggccgcgg cgcggaacgg cgcctcccgcc cccaccatgg gcaacagcgc gagccgcaac
60
gacttcgagt gggctctacac cgaccagccg cacacgcagc ggcgcaagga gatactggcc
120
aagtaccggg ccatcaaggc cctgatgcgg ccagaccggc gcctcaagtg ggcggggctg
180
gtgctgggtgc tgggtcagat gctggcctgc tggctgggtgc gcgggctggc ctggcgctgg
240
ctgctgttct gggcctacgc ctttggtggc tgcgtgaacc actcgctgac gctggccatc
300
cacgacatct cgcacaacgc ggccttcggc acggggccgtg cggcacgcaa ccgctggctg
360
gccgtgttcg ccaacctgcc cgtgggtgtg ccctacgcgg cctccttcaa gaagtaccac
420
gtggaccacc accgctacct gggcggcgac ggactggacg tggacgtgcc cacgcgt
477

```

&lt;210&gt; 3484

&lt;211&gt; 147

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3484

```

Met  Gly  Asn  Ser  Ala  Ser  Arg  Asn  Asp  Phe  Glu  Trp  Val  Tyr  Thr  Asp
1      5      10      15
Gln  Pro  His  Thr  Gln  Arg  Arg  Lys  Glu  Ile  Leu  Ala  Lys  Tyr  Pro  Ala
      20      25      30
Ile  Lys  Ala  Leu  Met  Arg  Pro  Asp  Pro  Arg  Leu  Lys  Trp  Ala  Gly  Leu
      35      40      45
Val  Leu  Val  Leu  Val  Gln  Met  Leu  Ala  Cys  Trp  Leu  Val  Arg  Gly  Leu
      50      55      60
Ala  Trp  Arg  Trp  Leu  Leu  Phe  Trp  Ala  Tyr  Ala  Phe  Gly  Gly  Cys  Val
65      70      75      80
Asn  His  Ser  Leu  Thr  Leu  Ala  Ile  His  Asp  Ile  Ser  His  Asn  Ala  Ala
      85      90      95
Phe  Gly  Thr  Gly  Arg  Ala  Ala  Arg  Asn  Arg  Trp  Leu  Ala  Val  Phe  Ala

```



100 105 110  
 Asn Leu Pro Val Gly Val Pro Tyr Ala Ala Ser Phe Lys Lys Tyr His  
 115 120 125  
 Val Asp His His Arg Tyr Leu Gly Gly Asp Gly Leu Asp Val Asp Val  
 130 135 140  
 Pro Thr Arg  
 145

<210> 3485

<211> 812

<212> DNA

<213> Homo sapiens

<400> 3485

tattttattta tagtcacaaa aactgttcag gaagaaatgt tatgaaaaga acattttttac  
 60  
 tgcattgctta aaacatttta ttttctatta tacagttaaa catttgcttg aattcagtga  
 120  
 gtctaaaaaa tcttattggt ctcagggttag cagttagttg agcagagtcc attggtgaag  
 180  
 caatctagtt attggcaaat tctaacacat ggtaaggtgt gggggaaaagg atttaaaata  
 240  
 acagaaaaat gtaagtacaa acatacataa cagcaaaata aaactcactt taacaaaaat  
 300  
 ttatttaaaa tgttaccccc atatttctct aatgaccaac ttgtttcagt tttatctccc  
 360  
 cctcatccgg ttattttatg tctttttggg aggaaggagg atgagggttt ttgtttttta  
 420  
 acaaaatcac tggcttttta aaaagtgtta ctgcagtcac ttataagatg catgttatgt  
 480  
 ggaagtgata cctgagttgt ttgcatgggc aatggaagag gcagcagctc tgaaaggagt  
 540  
 atgagtcag aaaaaaatcc ttcaggaacc ttcaagattg aagaaagaac ttcttttaac  
 600  
 attaaagacc aagtattatt ggccagagtc tcttctgaga ttgtgagttt ttcattaact  
 660  
 ccttgtgtaa aagtcagtaa aatatcaatg atatcattct gaattttctg ttcataccta  
 720  
 tccaaacgac ctgagagggg gatagagcac aggagcatat gtaaagtaac aagcgctgaa  
 780  
 ggaacacgca tgtccttaaa ctcaaaggat cc  
 812

<210> 3486

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3486

Met Arg Val Pro Ser Ala Leu Val Thr Leu His Met Leu Leu Cys Ser  
 1 5 10 15  
 Ile Pro Leu Ser Gly Arg Leu Asp Ser Asp Glu Gln Lys Ile Gln Asn  
 20 25 30  
 Asp Ile Ile Asp Ile Leu Leu Thr Phe Thr Gln Gly Val Asn Glu Lys

```

<400> 3488
Asp Ile Thr Trp  Pro Gly Val  Val  Val  Thr Arg Val  Ile Pro Ala Leu
  1              5              10             15
Trp Glu Ala Glu  Ala Gly Gly  Ser Arg Gly Gln Glu  Ile Glu Thr Ser

```

```

                20                25                30
Leu Ala Asn Thr Val Lys Pro Arg Leu Ile Leu Ser Phe Leu Thr Pro
                35                40                45
Phe Asn Pro Val Thr Glu Ile Ser Ile Cys Thr
                50                55

```

<210> 3489  
 <211> 288  
 <212> DNA  
 <213> Homo sapiens

```

<400> 3489
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60
agggagacca ggtctggccc ccaactctaa ggctcatctt agaggcgaga ttcaggccca
120
gcccaagggtg ccccatgagg cctggtggtt ggaggcagag ggtatccctt gccc aaattc
180
gtgccacatt cacagtcact gggaaagcta cggggatggg ccgggcgcgg tggctcacac
240
ctgtaatccc agcactttgg agagcccca gacgacggat caccgagtc
288

```

<210> 3490  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

```

<400> 3490
Met Gly Ala His Leu Leu Pro Gly Pro Gly Arg Pro Gly Arg Pro Gly
1          5          10          15
Arg Pro Gly Leu Ala Pro Asn Ser Lys Ala His Leu Arg Gly Glu Ile
20          25          30
Gln Ala Gln Pro Arg Val Pro His Glu Ala Trp Trp Leu Glu Ala Glu
35          40          45
Gly Ile Pro Cys Pro Asn Ser Cys His Ile His Ser His Trp Glu Ser
50          55          60
Tyr Gly Asp Gly Pro Gly Ala Val Ala His Thr Cys Asn Pro Ser Thr
65          70          75          80
Leu Glu Ser Pro Lys Thr Thr Asp His Glu
85          90

```

<210> 3491  
 <211> 568  
 <212> DNA  
 <213> Homo sapiens

```

<400> 3491
gggaaccgac gtcctctgt ggtgaaattc cacccttca cgcggtgcat cgcgtagcc
60
gacaaggaca gcatctgctt ttgggactgg gagaaagggg agaagctgga ttatttccac
120
aatgggaacc ctcggtacac gagggtcact gccatggagt atctgaatgg ccaggactgc
180

```

tcgcttctgc tgacggccac agacgatggt gccatcaggg tctggaagaa ttttgctgat  
 240  
 ttggaaaaga acccagagat ggtgaccgcg tggcaggggc tctcggacat gctgccaacg  
 300  
 acgcgaggag ctgggatggt ggtggactgg gagcaggaga ccggcctcct catgagctca  
 360  
 ggagacgtgc ggatcgctccg gatctgggac acagaccgtg agatgaaggt gcaggacatc  
 420  
 cctacgggcg cagacagctg tgtgacgagt ctgtcctgtg attcccacg ctcactcatc  
 480  
 gtggctggcc tcggtgacgg ctccatccgc gtctacgaca gaaggatggc actcagcgaa  
 540  
 tgccgcgtca tgacgtaccg ggagcaca  
 568

<210> 3492  
 <211> 189  
 <212> PRT  
 <213> Homo sapiens

<400> 3492  
 Gly Asn Arg Arg Pro Ser Val Val Lys Phe His Pro Phe Thr Pro Cys  
 1 5 10 15  
 Ile Ala Val Ala Asp Lys Asp Ser Ile Cys Phe Trp Asp Trp Glu Lys  
 20 25 30  
 Gly Glu Lys Leu Asp Tyr Phe His Asn Gly Asn Pro Arg Tyr Thr Arg  
 35 40 45  
 Val Thr Ala Met Glu Tyr Leu Asn Gly Gln Asp Cys Ser Leu Leu Leu  
 50 55 60  
 Thr Ala Thr Asp Asp Gly Ala Ile Arg Val Trp Lys Asn Phe Ala Asp  
 65 70 75 80  
 Leu Glu Lys Asn Pro Glu Met Val Thr Ala Trp Gln Gly Leu Ser Asp  
 85 90 95  
 Met Leu Pro Thr Thr Arg Gly Ala Gly Met Val Val Asp Trp Glu Gln  
 100 105 110  
 Glu Thr Gly Leu Leu Met Ser Ser Gly Asp Val Arg Ile Val Arg Ile  
 115 120 125  
 Trp Asp Thr Asp Arg Glu Met Lys Val Gln Asp Ile Pro Thr Gly Ala  
 130 135 140  
 Asp Ser Cys Val Thr Ser Leu Ser Cys Asp Ser His Arg Ser Leu Ile  
 145 150 155 160  
 Val Ala Gly Leu Gly Asp Gly Ser Ile Arg Val Tyr Asp Arg Arg Met  
 165 170 175  
 Ala Leu Ser Glu Cys Arg Val Met Thr Tyr Arg Glu His  
 180 185

<210> 3493  
 <211> 2244  
 <212> DNA  
 <213> Homo sapiens

<400> 3493  
 ngggggggat atccatgcag cgatcaggat gaaagaggtg attcaggaca accaagtaat  
 60

aaggaactgt ttggagatga cagtgaggac gagggagctt cacatcatag tggtagtgat  
120  
aatcactctg aaagatcaga caatagatca gaagcttctg agcgttctga ccatgaggac  
180  
aatgaccctt cagatgtaga tcagcacagt ggatcagaag cccctaata tgaagaagac  
240  
gaaggtcata gatcggatgg agggagccat cattcagaag cagaagggtc tgaaaaagca  
300  
cattcagatg atgaaaaatg gggcagagaa gataaaagt accagtcaga tgaatgaaa  
360  
atacaaaaatt ctgatgatga ggagagggca caaggatctg atgaagataa gctgcagaat  
420  
tctgacgatg atgagaaaat gcagaacaca gatgatgagg agaggcctca gctttccgat  
480  
gatgagagac aacagctatc tgaggaggaa aaggctaatt ctgatgatga acggccggt  
540  
gcttctgata atgatgatga gaaacagaat tctgatgatg aagaacaacc acagctgtct  
600  
gatgaagaga aaatgcaaaa ttctgatgat gaaaggccac agggcccaga tgaagaacac  
660  
aggcattcag atgatgaaga ggaacaggat cataaatcag aatccgcaag aggcagtgat  
720  
agtgaagatg aagttttacg aatgaaacgc aagaatgcga ttgcatctga ttcagaagcg  
780  
gatagtgaac ctgaggtgcc aaaagataat agtggaacca tggatttatt tggaggtgca  
840  
gatgatattc cttcagggag tgatggagaa gacaaaccac ctactccagg acagcctgtt  
900  
gatgaaaatg gattgcctca ggatcaacag gaagaggagc caattcctga gaccagaata  
960  
gaagtagaaa tacccaaagt aaacactgat ttaggaaacg acttatattt tgtaaactg  
1020  
cccaactttc tcagtgtaga gccagacct tttgatcctc agtattatga agatgaattt  
1080  
gaagatgaag aaatgctgga tgaagaaggc agaaccaggc taaaattaaa ggtagaaaat  
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1200  
cggatagtca agtggtcaga tggaagcatg tccctgcatt taggcaatga agtggttgat  
1260  
gtgtacaaag cccactgca gggcgaccac aatcatcttt ttataagaca aggtactggt  
1320  
ctacagggac aagcagtctt taaagcgaaa ctcacctca gacctcactc tacggacagt  
1380  
gccacacata gaaagatgac tctgtcactt gcagataggt gttcaaagac acagaagatt  
1440  
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1500  
gaagaagaac gtttgagggc ttccatacgt agggaaatctc agcagcgccg aatgagagag  
1560  
aaacagcacc agcggggggt gagcgccagt tacctggaac ctgatcgata cgatgaggag  
1620  
gaggaaggcg aggagtccat cagcttggct gccattaaaa accgatataa agggggcatt  
1680

cgagaggaac gagccagaat ctattcatca gacagtgatg agggatcaga agaagataaa  
 1740  
 gctcaaagat tactcaaagc aaagaaactt accagtgatg aggaaggtga accttccgga  
 1800  
 aagagaaaag cagaagatga tgataaagca aataaaaagc ataagaagta tgtgatcagc  
 1860  
 gatgaagagg aagaagatga tgattgaagt atgaaatatg aaaacatttt atatatttta  
 1920  
 ttgtacagtt ataaatatgt aaacatgagt tattttgatt gaaatgaatc gatttgcttt  
 1980  
 tgtgtaattt taattgtaat aaaacaattt aaaagcaagt ctctatgttt aagaaatcta  
 2040  
 cttttccggc caggcgcggt ggctcatgcc tgtaatccca gcacttcggg aggccgaggc  
 2100  
 aggtggatca caaggtcgtg gtggcggggtg cctgtagtcg cagctactcg ggaggctgag  
 2160  
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 2220  
 cactccagcc tggcgacaga gcta  
 2244

&lt;210&gt; 3494

&lt;211&gt; 628

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3494

Xaa	Gly	Gly	Tyr	Pro	Cys	Ser	Asp	Gln	Asp	Glu	Arg	Gly	Asp	Ser	Gly
1				5					10					15	
Gln	Pro	Ser	Asn	Lys	Glu	Leu	Phe	Gly	Asp	Asp	Ser	Glu	Asp	Glu	Gly
			20					25					30		
Ala	Ser	His	His	Ser	Gly	Ser	Asp	Asn	His	Ser	Glu	Arg	Ser	Asp	Asn
		35					40					45			
Arg	Ser	Glu	Ala	Ser	Glu	Arg	Ser	Asp	His	Glu	Asp	Asn	Asp	Pro	Ser
	50					55					60				
Asp	Val	Asp	Gln	His	Ser	Gly	Ser	Glu	Ala	Pro	Asn	Asp	Asp	Glu	Asp
65					70				75					80	
Glu	Gly	His	Arg	Ser	Asp	Gly	Gly	Ser	His	His	Ser	Glu	Ala	Glu	Gly
			85					90						95	
Ser	Glu	Lys	Ala	His	Ser	Asp	Asp	Glu	Lys	Trp	Gly	Arg	Glu	Asp	Lys
			100					105					110		
Ser	Asp	Gln	Ser	Asp	Asp	Glu	Lys	Ile	Gln	Asn	Ser	Asp	Asp	Glu	Glu
	115					120						125			
Arg	Ala	Gln	Gly	Ser	Asp	Glu	Asp	Lys	Leu	Gln	Asn	Ser	Asp	Asp	Asp
	130				135						140				
Glu	Lys	Met	Gln	Asn	Thr	Asp	Asp	Glu	Glu	Arg	Pro	Gln	Leu	Ser	Asp
145					150				155					160	
Asp	Glu	Arg	Gln	Gln	Leu	Ser	Glu	Glu	Glu	Lys	Ala	Asn	Ser	Asp	Asp
			165					170					175		
Glu	Arg	Pro	Val	Ala	Ser	Asp	Asn	Asp	Asp	Glu	Lys	Gln	Asn	Ser	Asp
	180						185						190		
Asp	Glu	Glu	Gln	Pro	Gln	Leu	Ser	Asp	Glu	Glu	Lys	Met	Gln	Asn	Ser
	195					200						205			
Asp	Asp	Glu	Arg	Pro	Gln	Ala	Pro	Asp	Glu	Glu	His	Arg	His	Ser	Asp

210	215	220
Asp Glu Glu Glu Gln Asp His Lys Ser Glu Ser Ala Arg Gly Ser Asp		
225	230	235
Ser Glu Asp Glu Val Leu Arg Met Lys Arg Lys Asn Ala Ile Ala Ser		
	245	250
Asp Ser Glu Ala Asp Ser Asp Thr Glu Val Pro Lys Asp Asn Ser Gly		
	260	265
Thr Met Asp Leu Phe Gly Gly Ala Asp Asp Ile Ser Ser Gly Ser Asp		
	275	280
Gly Glu Asp Lys Pro Pro Thr Pro Gly Gln Pro Val Asp Glu Asn Gly		
	290	295
Leu Pro Gln Asp Gln Gln Glu Glu Glu Pro Ile Pro Glu Thr Arg Ile		
305	310	315
Glu Val Glu Ile Pro Lys Val Asn Thr Asp Leu Gly Asn Asp Leu Tyr		
	325	330
Phe Val Lys Leu Pro Asn Phe Leu Ser Val Glu Pro Arg Pro Phe Asp		
	340	345
Pro Gln Tyr Tyr Glu Asp Glu Phe Glu Asp Glu Glu Met Leu Asp Glu		
	355	360
Glu Gly Arg Thr Arg Leu Lys Leu Lys Val Glu Asn Thr Ile Arg Trp		
	370	375
Arg Ile Arg Arg Asp Glu Glu Gly Asn Glu Ile Lys Glu Ser Asn Ala		
385	390	395
Arg Ile Val Lys Trp Ser Asp Gly Ser Met Ser Leu His Leu Gly Asn		
	405	410
Glu Val Phe Asp Val Tyr Lys Ala Pro Leu Gln Gly Asp His Asn His		
	420	425
Leu Phe Ile Arg Gln Gly Thr Gly Leu Gln Gly Gln Ala Val Phe Lys		
	435	440
Ala Lys Leu Thr Phe Arg Pro His Ser Thr Asp Ser Ala Thr His Arg		
	450	455
Lys Met Thr Leu Ser Leu Ala Asp Arg Cys Ser Lys Thr Gln Lys Ile		
465	470	475
Arg Ile Leu Pro Met Ala Gly Arg Asp Pro Glu Cys Gln Arg Thr Glu		
	485	490
Met Ile Lys Lys Glu Glu Glu Arg Leu Arg Ala Ser Ile Arg Arg Glu		
	500	505
Ser Gln Gln Arg Arg Met Arg Glu Lys Gln His Gln Arg Gly Leu Ser		
	515	520
Ala Ser Tyr Leu Glu Pro Asp Arg Tyr Asp Glu Glu Glu Glu Gly Glu		
	530	535
Glu Ser Ile Ser Leu Ala Ala Ile Lys Asn Arg Tyr Lys Gly Gly Ile		
545	550	555
Arg Glu Glu Arg Ala Arg Ile Tyr Ser Ser Asp Ser Asp Glu Gly Ser		
	565	570
Glu Glu Asp Lys Ala Gln Arg Leu Leu Lys Ala Lys Lys Leu Thr Ser		
	580	585
Asp Glu Glu Gly Glu Pro Ser Gly Lys Arg Lys Ala Glu Asp Asp Asp		
	595	600
Lys Ala Asn Lys Lys His Lys Lys Tyr Val Ile Ser Asp Glu Glu Glu		
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Glu Asp Asp Asp		620
625		

<210> 3495  
 <211> 1085  
 <212> DNA  
 <213> Homo sapiens

<400> 3495  
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 120  
 gcgtccccgg aggagatcaa gaaggcctat cggaagctgg cgctcaagta ccaccggac  
 180  
 aagaaccgg atgagggcga gaagttaaa ctcatatccc aggcataatga agtgctttca  
 240  
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 300  
 tcaggcagcc ccagcttctc ttcacccatg gacatctttg acatgttctt tgggtgggtg  
 360  
 ggacggatgg ctagagagag aagaggcaag aatgttgtag accagttatc tgtaactctt  
 420  
 gaagatctat ataatggagt cacgaagaaa ttggccctcc agaaaaatgt aatttgtag  
 480  
 aaatgtgaag gtgttggtgg gaagaaggga tcggtggaga agtgcccgt gtgcaagggg  
 540  
 cgggggatgc agatccacat ccagcagatc gggccgggca tggtagagca gatccagacc  
 600  
 gtgtgcatcg agtgcaaggg ccagggtgag cgcatacaacc ccaaggaccg ctgagagagc  
 660  
 tgcagcgggg ccaagggtgat ccgtgagaag aagattatcg aggtacatgt tgaaaaaggt  
 720  
 atgaaaagatg ggcaaaagat actatttcat ggagaaggag atcaggagcc tgagctggag  
 780  
 cctggtgatg tcataattgt gcttgatcag aaggatcata gtgtctttca gagacgaggg  
 840  
 catgacttga tcatgaaat gaaaattcag ctttctgaag ctctttgtgg cttcaagaag  
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 1085

<210> 3496  
 <211> 337  
 <212> PRT  
 <213> Homo sapiens

<400> 3496  
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 1 5 10 15  
 Ala Ser Pro Glu Glu Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Lys



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Tyr His Pro Asp Lys Asn Pro Asp Glu Gly Glu Lys Phe Lys Leu Ile
      35      40      45
Ser Gln Ala Tyr Glu Val Leu Ser Asp Pro Lys Lys Arg Asp Val Tyr
      50      55      60
Asp Gln Gly Gly Glu Gln Ala Ile Lys Glu Gly Gly Ser Gly Ser Pro
      65      70      75      80
Ser Phe Ser Ser Pro Met Asp Ile Phe Asp Met Phe Phe Gly Gly Gly
      85      90      95
Gly Arg Met Ala Arg Glu Arg Arg Gly Lys Asn Val Val His Gln Leu
      100      105      110
Ser Val Thr Leu Glu Asp Leu Tyr Asn Gly Val Thr Lys Lys Leu Ala
      115      120      125
Leu Gln Lys Asn Val Ile Cys Glu Lys Cys Glu Gly Val Gly Gly Lys
      130      135      140
Lys Gly Ser Val Glu Lys Cys Pro Leu Cys Lys Gly Arg Gly Met Gln
      145      150      155      160
Ile His Ile Gln Gln Ile Gly Pro Gly Met Val Gln Gln Ile Gln Thr
      165      170      175
Val Cys Ile Glu Cys Lys Gly Gln Gly Glu Arg Ile Asn Pro Lys Asp
      180      185      190
Arg Cys Glu Ser Cys Ser Gly Ala Lys Val Ile Arg Glu Lys Lys Ile
      195      200      205
Ile Glu Val His Val Glu Lys Gly Met Lys Asp Gly Gln Lys Ile Leu
      210      215      220
Phe His Gly Glu Gly Asp Gln Glu Pro Glu Leu Glu Pro Gly Asp Val
      225      230      235      240
Ile Ile Val Leu Asp Gln Lys Asp His Ser Val Phe Gln Arg Arg Gly
      245      250      255
His Asp Leu Ile Met Lys Met Lys Ile Gln Leu Ser Glu Ala Leu Cys
      260      265      270
Gly Phe Lys Lys Thr Ile Lys Thr Leu Asp Asn Arg Ile Leu Val Ile
      275      280      285
Thr Ser Lys Ala Gly Glu Val Ile Lys His Gly Asp Leu Arg Cys Val
      290      295      300
Arg Asp Glu Gly Met Pro Ile Tyr Lys Ala Pro Leu Glu Lys Gly Ile
      305      310      315      320
Leu Ile Ile Gln Phe Leu Val Ile Phe Pro Xaa Lys His Trp Leu Ser
      325      330      335
Leu

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&lt;210&gt; 3497

&lt;211&gt; 1638

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3497

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gtggcaactt tgttgctata attttatgca gcagataaag gtagacgttc ctcccaaaag  
120

tttttagtat atccttctaa aaagttttcc tgagaatttt tagtttgccc tctcaagttt  
180

ccttatttta ccttttctta aattacctcc ctccctcctt agtgaaatga gccttccttc  
240  
agcatacgca acttatcctt attgcttttt tcatacccaa ttttttggtt tatctcttcc  
300  
agccaaactgg gtcctgaagt agctgaaatg cgaaaaaggc agcagtccca aaatgaagga  
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420  
tggtgctggt gttgcagctg ctccctgctc actgtgagga atgaagaaag aggggaaaat  
480  
gcgggaagac ccacacacac tacaaaaatg gagagtatcc aggtcctaga ggaatgccaa  
540  
aaccctactg cagaggaagt cttgtcctgg tctcaaaatt ttgacaagat gatgaaggcc  
600  
ccagcaggaa gaaacctttt cagagagttc ctccgaacag aatacagtga agagaacctt  
660  
cttttctggc ttgcttggtg agacttaaaag aaggagcaga acaaaaaagt aattgaagaa  
720  
aaggctagga tgatatatga agattacatt tctatactat caccaaaaga ggtcagtctt  
780  
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1020  
catcagaaac tgagttcttg gagaactaca gtttagcatt cctcaggcta ctgtgaaaac  
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acaaccgtta tggcttttgt ctccattttt atcaagggtt tccatgggta agtttggaga  
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1638

&lt;210&gt; 3498

&lt;211&gt; 210

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3498

```

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Gln Ala Pro Gly Asn Gln Arg Pro Asn Asn Thr Cys Cys Phe Cys Trp
      20           25           30
Cys Cys Cys Cys Ser Cys Ser Cys Leu Thr Val Arg Asn Glu Glu Arg
      35           40           45
Gly Glu Asn Ala Gly Arg Pro Thr His Thr Thr Lys Met Glu Ser Ile
      50           55           60
Gln Val Leu Glu Glu Cys Gln Asn Pro Thr Ala Glu Glu Val Leu Ser
      65           70           75           80
Trp Ser Gln Asn Phe Asp Lys Met Met Lys Ala Pro Ala Gly Arg Asn
      85           90           95
Leu Phe Arg Glu Phe Leu Arg Thr Glu Tyr Ser Glu Glu Asn Leu Leu
      100          105          110
Phe Trp Leu Ala Cys Glu Asp Leu Lys Lys Glu Gln Asn Lys Lys Val
      115          120          125
Ile Glu Glu Lys Ala Arg Met Ile Tyr Glu Asp Tyr Ile Ser Ile Leu
      130          135          140
Ser Pro Lys Glu Val Ser Leu Asp Ser Arg Val Arg Glu Val Ile Asn
      145          150          155          160
Arg Asn Leu Leu Asp Pro Asn Pro His Met Tyr Glu Asp Ala Gln Leu
      165          170          175
Gln Ile Tyr Thr Leu Met His Arg Asp Ser Phe Pro Arg Phe Leu Asn
      180          185          190
Ser Gln Ile Tyr Lys Ser Phe Val Glu Ser Thr Ala Gly Ser Ser Ser
      195          200          205
Glu Ser
      210

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&lt;210&gt; 3499

&lt;211&gt; 732

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3499

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120
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180
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240
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300
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420
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480
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540

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 600  
 gcatctcccg ccggccaagc ctccctcccg ccanggtccg gggcgatgca cagactcggg  
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<210> 3500

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3500

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Gly	Ala	Arg	Arg	Ser	Pro	Gly	Thr	Trp	Arg	Tyr	Arg	Gly	His	Ser	Ser
		20					25					30			
Ala	Ser	Thr	Gly	Lys	Gln	Gly	Ala	Pro	Gly	Pro	Asp	Trp	Ala	Cys	Ile
		35				40					45				
Phe	His	Val	Val	Leu	Gln	Pro	Ser	Arg	His	Gly	Pro	Glu	Ala	Thr	Ala
	50				55					60					
Ala	Pro	Gln	Ser	Pro	Pro	Thr	Pro	Ala	Val	Pro	Pro	Gly	His	Gly	Ala
65				70				75					80		
His	Asp	Ser	Gly	Pro	Gly	Gln	Arg	Gln	Arg	Gln	Gly	Ala	Gly	Ser	Thr
			85					90					95		
Pro	Ala	Arg	Val	Pro	Val	His	Gly	Ser	Pro	Ser	Ser	Cys	Arg	Ala	Leu
		100						105					110		
Arg	Pro	Ala	Gly	Arg	Ser	Ser	Arg	Ala	Ala	Pro	Arg	Ala	Ser	Pro	Ala
	115					120					125				
Gly	Gln	Ala	Ser	Ser	Arg	Pro	Xaa	Ser	Gly	Ala	Met	His	Arg	Leu	Gly
	130				135					140					
Glu	Gly	Asn	Arg	Ala	Gly	Glu	Lys	Val	Phe	Arg	Arg	Thr	Ala	Val	Gln
145				150					155					160	
Lys	Arg	Arg	Val	Gly	Gly	Gly	Thr								
			165												

<210> 3501

<211> 691

<212> DNA

<213> Homo sapiens

<400> 3501

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 120  
 cccctatag agaagatgga tgcaccttg tccatgcttg ctaattgcga gaagctttca  
 180  
 ctgtctacaa actgcattga aaaaattgcc aacctgaatg gcttaaaaaa cttgaggata  
 240  
 ttatcttttag gaagaaacaa cataaagaac ttaaatggac tggaggcagt aggggacaca  
 300

ttagaagaac tgtggatctc ctacaatttt attgagaagt tgaaagggat ccacataatg  
 360  
 aagaaattga agattctcta catgtctaataaacctggttaa aagactgggc tgagtttgtg  
 420  
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 480  
 aaacattctg ctgagaataa ctggattgaa gaagcaacca agagagtgcc caaactgaaa  
 540  
 aagctggatg gtactccagt aattaaaggg gatgaggaag aagacaacta atgccacgct  
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 660  
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 691

<210> 3502  
 <211> 196  
 <212> PRT  
 <213> Homo sapiens

<400> 3502  
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 Glu Ile Lys Leu Tyr Ala Gln Ile Pro Pro Ile Glu Lys Met Asp Ala  
 35 40 45  
 Ser Leu Ser Met Leu Ala Asn Cys Glu Lys Leu Ser Leu Ser Thr Asn  
 50 55 60  
 Cys Ile Glu Lys Ile Ala Asn Leu Asn Gly Leu Lys Asn Leu Arg Ile  
 65 70 75 80  
 Leu Ser Leu Gly Arg Asn Asn Ile Lys Asn Leu Asn Gly Leu Glu Ala  
 85 90 95  
 Val Gly Asp Thr Leu Glu Glu Leu Trp Ile Ser Tyr Asn Phe Ile Glu  
 100 105 110  
 Lys Leu Lys Gly Ile His Ile Met Lys Lys Leu Lys Ile Leu Tyr Met  
 115 120 125  
 Ser Asn Asn Leu Val Lys Asp Trp Ala Glu Phe Val Lys Leu Ala Glu  
 130 135 140  
 Leu Pro Cys Leu Glu Asp Leu Val Phe Val Gly Asn Pro Leu Glu Glu  
 145 150 155 160  
 Lys His Ser Ala Glu Asn Asn Trp Ile Glu Glu Ala Thr Lys Arg Val  
 165 170 175  
 Pro Lys Leu Lys Lys Leu Asp Gly Thr Pro Val Ile Lys Gly Asp Glu  
 180 185 190  
 Glu Glu Asp Asn  
 195

<210> 3503  
 <211> 857  
 <212> DNA  
 <213> Homo sapiens

<400> 3503

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 120  
 aatgcccaga gattagcgga gaagctccga gccacagaaac gggaacaaga cacaaagaag  
 180  
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 720  
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 840  
 ccaatccttg gtgatca  
 857

&lt;210&gt; 3504

&lt;211&gt; 285

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3504

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Gln	Gly	Cys	Gly	Ser	Leu	Phe	Thr	Leu	Val	Ser	Lys	Pro	Phe	Cys	Ala
		20						25					30		
Ala	Ala	Ala	Ala	Ser	Thr	Ala	Ile	Asn	Ala	Gln	Arg	Leu	Ala	Glu	Lys
		35					40				45				
Leu	Arg	Ala	Gln	Lys	Arg	Glu	Gln	Asp	Thr	Lys	Lys	Glu	Pro	Val	Ser
50					55				60						
Thr	Asn	Ala	Val	Gln	Arg	Arg	Val	Gln	Glu	Ile	Val	Arg	Phe	Thr	Arg
65					70				75				80		
Gln	Leu	Gln	Arg	Val	His	Pro	Asn	Val	Leu	Ala	Lys	Ala	Leu	Thr	Arg
			85					90					95		
Gly	Ile	Leu	His	Gln	Asp	Lys	Asn	Leu	Val	Val	Ile	Asn	Lys	Pro	Tyr
		100					105					110			
Gly	Leu	Pro	Val	His	Gly	Gly	Pro	Gly	Val	Gln	Leu	Cys	Ile	Thr	Asp
		115					120					125			
Val	Leu	Pro	Ile	Leu	Ala	Lys	Met	Leu	His	Gly	His	Lys	Ala	Glu	Pro

130		135		140	
Leu His Leu Cys His Arg Leu Asp Lys Glu Thr Thr Gly Val Met Val					
145		150		155	160
Leu Ala Trp Asp Lys Asp Met Ala His Gln Val Gln Glu Leu Phe Arg					
	165		170		175
Thr Arg Gln Val Val Lys Lys Tyr Trp Ala Ile Thr Val His Val Pro					
	180		185		190
Met Pro Ser Ala Gly Val Val Asp Ile Pro Ile Val Glu Lys Glu Gly					
	195		200		205
Gln Gly Gln Gln Gln His Pro Arg Met Thr Leu Ser Pro Ser Ser Arg					
	210		215		220
Met Asp Asp Gly Lys Met Val Lys Val Arg Arg Ser Arg Asn Ala Gln					
225		230		235	240
Val Ala Val Thr Gln Tyr Gln Val Leu Ser Ser Thr Leu Ser Ser Ala					
	245		250		255
Leu Val Glu Leu Gln Pro Ile Thr Gly Ile Lys His Gln Leu Arg Val					
	260		265		270
His Leu Ser Phe Gly Leu Asp Cys Pro Ile Leu Gly Asp					
	275		280		285

&lt;210&gt; 3505

&lt;211&gt; 1612

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3505

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720
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840

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<210> 3506

<211> 502

<212> PRT

<213> Homo sapiens

<400> 3506

Val	His	Glu	Leu	His	Leu	Ser	Ala	Leu	Gln	Lys	Ala	Gln	Val	Ala	Leu
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Met	Thr	Leu	Thr	Leu	Phe	Pro	Val	Arg	Leu	Leu	Val	Ala	Ala	Ala	Met
		20						25					30		
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Glu	Lys	Glu	Pro	Glu	Gln	Pro	Pro	Ala	Leu	Trp	Arg	Lys	Val	Val	Asp
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Ile	Leu	Thr	Leu	Ala	Pro	His	Ser	Ser	Tyr	Phe	Asp	Ala	Ile	Pro	Val
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Arg	Ser	Asp	Gln	Asp	Ser	Arg	Arg	Lys	Thr	Val	Glu	Glu	Ile	Lys	Arg
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Leu	Tyr	Ala	Ser	Asn	Val	Arg	Arg	Val	Met	Ala	Glu	Ala	Leu	Gly	Val	Leu	Tyr	Ala	Ser	Asn	Val	Arg	Arg	Val	Met	
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Leu	Arg	Glu	Cys	Val	Val	Ala	Leu	Ser	Val	Val	Cys	Trp	Pro	Ala	Arg	Leu	Arg	Glu	Cys	Val	Val	Ala	Leu	Ser		
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Thr	Leu	Asp	Thr	Ile	Gln	Leu	Ala	Phe	Lys	Met	Tyr	Gly	Ala	Gln	Glu	Thr	Leu	Asp	Thr	Ile	Gln	Leu	Ala	Phe		
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Asp	Gly	Ser	Val	Gly	Glu	Gly	Asp	Leu	Ser	Cys	Ile	Leu	Lys	Thr	Ala	Asp	Gly	Ser	Val	Gly	Glu	Gly	Asp			
										405					410					415						
Leu	Gly	Val	Ala	Glu	Leu	Thr	Val	Thr	Asp	Leu	Phe	Arg	Ala	Ile	Asp	Leu	Gly	Val	Ala	Glu	Leu	Thr	Val			
										420					425					430						
Gln	Glu	Glu	Lys	Gly	Lys	Ile	Thr	Phe	Ala	Asp	Phe	His	Arg	Phe	Ala	Gln	Glu	Glu	Lys	Gly	Lys	Ile	Thr			
										435					440					445						
Glu	Met	Tyr	Pro	Ala	Phe	Ala	Glu	Glu	Tyr	Leu	Tyr	Pro	Asp	Gln	Thr	Glu	Met	Tyr	Pro	Ala	Phe	Ala	Glu			
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His	Phe	Glu	Ser	Cys	Ala																					

<210> 3507

<211> 885

&lt;212&gt; DNA

<213> Homo sapiens

<400> 3507

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&lt;210&gt; 3508

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3508

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 85 90 95  
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 115 120 125  
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 <212> DNA  
 <213> Homo sapiens

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                     20                      25                      30  
 Leu Ala His Tyr His Val Ala Met Ala Leu Cys Asp Gly Ser Pro Thr  
                     35                      40                      45  
 Glu Gly Glu Leu Pro Thr His Glu Gln Val Phe Leu Ser Pro Pro Pro  
                     50                      55                      60  
 Pro Leu Ser Pro Arg Gly Pro Gly Leu Pro Gln Lys Leu Glu Glu Arg  
 65                      70                      75                      80  
 Arg Gln Leu Gly Lys Ala Pro Met Gly Gly Val Pro Trp Gly Ser Asp  
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<210> 3511  
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 <212> DNA  
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<210> 3512

<211> 462

<212> PRT

<213> Homo sapiens

<400> 3512

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Ser Gln Thr Cys Asp Trp Gly Asn Leu Leu Gln Asp Ile Ile Leu Gln
      65           70           75           80
Val Phe Lys Tyr Leu Pro Leu Leu Asp Arg Ala His Ala Ser Gln Val
      85           90           95
Cys Arg Asn Trp Asn Gln Val Phe His Met Pro Asp Leu Trp Arg Cys
      100          105          110
Phe Glu Phe Glu Leu Asn Gln Pro Ala Thr Ser Tyr Leu Lys Ala Thr
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Gln Tyr Val Ser Phe Lys Val Asp Ser Ser Lys Glu Ser Ala Glu Ala
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	405	410
Cys Gly Gly Arg Leu Ser Gln Leu Ser Ile Met Glu Glu Val Leu Ile		415
	420	425
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&lt;210&gt; 3513

&lt;211&gt; 2103

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3513

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&lt;210&gt; 3514

&lt;211&gt; 484

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3514

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2676

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<213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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 Asp Lys Leu Asn Glu Leu Arg Arg Gln Lys Glu Lys Leu Glu Glu Lys  
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 Gly Asn Trp Ile Thr Leu Lys Met Arg Lys Leu Ile Lys Ser Lys Lys  
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 Asp Ile Asn Arg Glu Arg Gln Lys Ser Leu Thr Leu Thr Pro Thr Arg  
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 130 135 140  
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 Gly Thr Lys Lys Ser Ser Thr Met Asn Asp Leu Val Gln Ser Met Val  
 165 170 175  
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 Ser Thr Thr Ala Ile Asn Phe Ser Thr Val Asn Ser Ser Ala Gly Phe  
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 Leu His Asp His Glu Ala Trp Ser Ser Ser Gly Ser Ser Pro Ile Gln  
 305                      310                      315                      320  
 Tyr Leu Lys Arg Gln Thr Arg Ser Ser Pro Val Leu Gln His Lys Ile  
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 Ser Glu Thr Leu Glu Ser Arg His His Lys Ile Lys Thr Gly Ser Pro  
 340                      345                      350  
 Gly Ser Glu Val Val Thr Leu Gln Gln Phe Leu Glu Glu Ser Asn Lys  
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 Leu Thr Ser Val Gln Ile Lys Ser Ser Ser Gln Glu Asn Leu Leu Asp  
 370                      375                      380  
 Glu Val Met Lys Ser Leu Ser Val Ser Ser Asp Phe Leu Gly Lys Asp  
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 Lys Pro Val Ser Cys Gly Leu Ala Arg Ser Val Ser Gly Lys Thr Pro  
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 Gly Asp Phe Tyr Asp Arg Arg Thr Thr Lys Pro Glu Phe Leu Arg Pro  
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 465                      470                      475                      480  
 Ala Ser Ser Val Ile Ser Thr Ala Glu Gly Thr Thr Arg Arg Thr Ser  
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 Ile His Asp Phe Leu Thr Lys Asp Ser Arg Leu Pro Ile Ser Val Asp  
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 Ser Pro Pro Ala Ala Ala Asp Ser Asn Thr Thr Ala Ala Ser Asn Val  
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 Asp Lys Val Gln Glu Ser Arg Asn Ser Lys Ser Arg Ser Arg Glu Gln  
 530                      535                      540  
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&lt;210&gt; 3517

&lt;211&gt; 342

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3517

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 Ile Val Ala Ser Phe Val Leu Ala Gly Glu Thr Glu Ala Thr Ala Leu  
 35 40 45  
 Gln Arg Met Pro Asp Arg Pro Thr Ser Arg Pro Leu Leu Val Arg Ala  
 50 55 60  
 Ser Leu Ser Pro Ser Gly Leu Gly Ala Cys Asp Thr Ala Leu Arg Pro  
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 <213> Homo sapiens

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&lt;210&gt; 3520

&lt;211&gt; 303

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 3520

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 35 40 45  
 Arg Glu Glu Leu Ala Arg Ile Gly Leu Val Pro Pro Pro Glu Glu Phe  
 50 55 60  
 Ala Asn Gly Val Leu Leu Ala Thr Pro Leu Ala Gly Pro Gly Pro Ser  
 65 70 75 80  
 Pro Thr Thr Val Pro Ser Pro Ala Ser Gly Lys Pro Ser Ser Glu Pro  
 85 90 95  
 Pro Pro Ala Pro Glu Ser Ala Ala Asp Ser Gly Val Glu Glu Ala Asp  
 100 105 110  
 Thr Arg Ser Ser Ser Asp Pro His Leu Glu Thr Thr Ser Thr Ile Ser  
 115 120 125  
 Thr Val Ser Ser Met Ser Thr Leu Ser Ser Glu Ser Gly Glu Leu Thr  
 130 135 140  
 Asp Thr His Thr Ser Phe Ala Asp Gly His Thr Phe Leu Leu Glu Lys  
 145 150 155 160  
 Pro Pro Val Pro Pro Lys Pro Lys Leu Lys Ser Pro Leu Gly Lys Gly  
 165 170 175  
 Pro Val Thr Phe Arg Asp Pro Leu Leu Lys Gln Ser Ser Asp Ser Glu  
 180 185 190  
 Leu Met Ala Gln Gln His His Ala Ala Ser Ala Gly Leu Ala Ser Ala  
 195 200 205  
 Ala Gly Pro Ala Arg Pro Arg Tyr Leu Phe Gln Arg Arg Ser Lys Leu  
 210 215 220  
 Trp Gly Asp Pro Val Glu Ser Arg Gly Leu Pro Gly Pro Glu Asp Asp  
 225 230 235 240  
 Lys Pro Thr Val Ile Ser Glu Leu Ser Ser Arg Leu Gln Gln Leu Asn  
 245 250 255  
 Lys Asp Thr Arg Ser Leu Gly Glu Glu Pro Val Gly Gly Leu Gly Ser  
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 Leu Ser Ser Leu Gly Leu Gly Trp Tyr Val Asp Ala Thr Ser  
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&lt;210&gt; 3521

&lt;211&gt; 638

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3521

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<211> 181

<212> PRT

<213> Homo sapiens

<400> 3522

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		20						25				30			
Gln	His	Ala	Asp	Gln	Gly	Pro	Pro	Gly	Pro	His	Leu	Asp	Leu	His	Gln
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Asp	Leu	Gln	Ala	Glu	Pro	Leu	Arg	Pro	Ala	Gly	Leu	Gly	Gly	Gly	Leu
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Leu	Arg	Cys	Gly	Leu	Pro	Ser	Glu	Gln	Arg	Ala	Ala	Gly	Glu	Ala	Arg
65					70				75					80	
Gly	Leu	His	Leu	Leu	Gln	Asp	Pro	Thr	Pro	Gly	Arg	Leu	Cys	Gln	Ala
			85						90				95		
Pro	Ala	Gly	Pro	Pro	Gly	Gly	Gly	His	Gly	Pro	Ala	Gly	Arg	Gly	Gln
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<210> 3523

<211> 2614

<212> DNA

<213> Homo sapiens

<400> 3523

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<211> 444

<212> PRT

<213> Homo sapiens

<400> 3524

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Ser	Arg	Arg	His	Pro	Gly	Gly	Ser	Arg	Val	Ile	Ser	His	Tyr	Ala	Gly
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Gln	Asp	Ala	Thr	Asp	Pro	Phe	Val	Ala	Phe	His	Ile	Asn	Lys	Gly	Leu
65				70				75						80	
Val	Lys	Lys	Tyr	Met	Asn	Ser	Leu	Leu	Ile	Gly	Glu	Leu	Ser	Pro	Glu
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Arg	Glu	Leu	Arg	Ala	Thr	Val	Glu	Arg	Met	Gly	Leu	Met	Lys	Ala	Asn

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Leu	Gln	His	Asp	Phe	Gly	His	Leu	Ser	Val	Phe	Ser	Thr	Ser	Lys	Trp				
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Gln	Arg	Lys	Lys	Trp	Val	Asp	Leu	Val	Trp	Met	Ile	Thr	Phe	Tyr	Val				
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385					390					395					400				
Pro	Leu	Val	Gln	Ser	Leu	Cys	Ala	Lys	His	Gly	Ile	Glu	Tyr	Gln	Ser				
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Lys	Pro	Leu	Leu	Ser	Ala	Phe	Ala	Asp	Ile	Ile	His	Ser	Leu	Lys	Glu				
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<210> 3525

<211> 1116

<212> DNA

<213> Homo sapiens

<400> 3525

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120

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&lt;210&gt; 3526

&lt;211&gt; 304

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3526

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 Arg Lys Gly Ile Cys Glu Tyr His Leu Lys Asn Tyr Ala Ala Ala Leu  
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 50 55 60  
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 Val Val Met Glu Pro Ala Leu Glu Gly Thr Gly Lys Glu Gly Lys Lys  
 85 90 95  
 Ala Ser Ser Arg Lys Arg Thr Leu Ala Glu Pro Pro Ala Lys Gly Leu  
 100 105 110  
 Leu Gln Pro Val Lys Leu Ser Arg Ala Glu Leu Tyr Lys Glu Pro Thr

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Ser Leu Leu Arg Leu Gln Val Glu Glu Leu Leu Lys Glu Val Arg Leu		
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Ser Glu Lys Lys Lys Asp Arg Ile Asp Ala Phe Leu Arg Glu Val Asn		
165	170	175
Gln Arg Val Val Arg Val Pro Ser Val Pro Glu Thr Glu Leu Thr Asp		
180	185	190
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195	200	205
Tyr Ala Val Lys Gly Cys Phe Arg Phe Leu Pro Pro Ala Gln Val Thr		
210	215	220
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225	230	235
Val Asp Val Ala Leu Thr Met Pro Arg Glu Ile Leu Gln Asp Lys Asp		
245	250	255
Gly Leu Asn Gln Arg Tyr Phe Arg Lys Arg Ala Leu Tyr Leu Ala His		
260	265	270
Leu Ala His His Leu Ala Gln Asp Pro Leu Phe Gly Ser Val Cys Phe		
275	280	285
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290	295	300

&lt;210&gt; 3527

&lt;211&gt; 2838

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3527

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<210> 3528

<211> 281

<212> PRT

<213> Homo sapiens

<400> 3528

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			100					105					110		
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Asp	Pro	Asn	Leu	Gly	Cys	Ser	Ser	Asp	Thr	Ile	Glu	Val	Ser	Cys	Asn
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Phe	Thr	His	Gly	Gly	Gln	Thr	Cys	Leu	Lys	Pro	Ile	Thr	Ala	Ser	Lys
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Val	Glu	Phe	Ala	Ile	Ser	Arg	Val	Gln	Met	Asn	Phe	Leu	His	Leu	Leu
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Ser	Ser	Glu	Val	Thr	Gln	His	Ile	Thr	Ile	His	Cys	Leu	Asn	Met	Thr
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Val	Trp	Gln	Glu	Gly	Thr	Gly	Gln	Thr	Pro	Ala	Lys	Gln	Ala	Val	Arg
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Phe	Arg	Ala	Trp	Asn	Gly	Gln	Ile	Phe	Glu	Ala	Gly	Gly	Gln	Phe	Arg
	210					215					220				
Pro	Glu	Val	Ser	Met	Asp	Gly	Cys	Lys	Val	Gln	Asp	Gly	Arg	Trp	His

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		245		250		255
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Leu Glu Val Gly Pro Ala Cys Phe Leu						
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&lt;210&gt; 3529

&lt;211&gt; 3026

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3529

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<211> 206

<212> PRT

<213> Homo sapiens

<400> 3530

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		20						25					30		
Cys	Xaa	Ser	Pro	Val	Ala	Gly	Val	Ala	His	Arg	Phe	His	Ser	Thr	Cys
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Gly	Lys	Asn	Val	Thr	Leu	Glu	Asp	Gly	Thr	Arg	Ala	Val	Arg	Ala	
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Ala	Gly	Tyr	Ala	His	Gly	Leu	Val	Phe	Ser	Thr	Lys	Glu	Leu	Arg	Ala
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Glu	Glu	Val	Phe	Glu	Val	Lys	Val	Glu	Glu	Leu	Asp	Glu	Lys	Trp	Ala
			85					90					95		
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Pro	Gly	Ala	Gly	Gly	Gly	Gly	Pro	Gly	Leu	Pro	Pro	Ser	Leu	Pro	Glu
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Leu	Arg	Thr	Lys	Thr	Thr	Trp	Met	Val	Ser	Ser	Cys	Glu	Val	Arg	Arg
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Asp	Gly	Gln	Leu	Gln	Arg	Met	Asn	Tyr	Gly	Arg	Asn	Leu	Glu	Arg	Leu
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Gly	Val	Lys	Trp	Leu	Ala	Pro	Gly	Thr	Gly	Glu	Gly	Leu	Gly	Val	Glu
			165					170						175	
Val	Ala	Gly	Arg	Gly	Gly	Leu	Asn	Ile	Val	Arg	Pro	Cys	Pro	Thr	Ser
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<211> 879

<212> DNA

<213> Homo sapiens

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1151

<210> 3534

<211> 313

<212> PRT

<213> Homo sapiens

<400> 3534

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Met Asp Asn Leu Pro Ser Ala Ala Ser Pro Leu Glu Gln Asn Pro Ser
      35              40              45
Lys His Gly Ala Ile Pro Gly Gly Leu Ser Ile Gly Pro Pro Gly Lys
      50              55              60
Ser Ser Ile Asp Asp Ser Tyr Gly Arg Tyr Asp Leu Ile Gln Asn Ser
      65              70              75              80
Glu Ser Pro Ala Ser Pro Pro Val Ala Val Pro His Ser Trp Ser Arg
      85              90              95
Ala Lys Ser Asp Ser Asp Lys Ile Ser Asn Gly Ser Ser Ile Asn Trp
      100             105             110
Pro Pro Glu Phe His Pro Gly Val Pro Trp Lys Gly Leu Gln Asn Ile
      115             120             125
Asp Pro Glu Asn Asp Pro Asp Val Thr Pro Gly Ser Val Pro Thr Gly
      130             135             140
Pro Thr Ile Asn Thr Thr Ile Gln Asp Val Asn Arg Tyr Leu Leu Lys
      145             150             155             160
Ser Gly Gly Ser Ser Pro Pro Ser Ser Gln Asn Ala Thr Leu Pro Ser
      165             170             175
Ser Ser Ala Trp Pro Leu Ser Ala Ser Gly Tyr Ser Ser Ser Phe Ser
      180             185             190
Ser Ile Ala Ser Ala Pro Ser Val Ala Gly Lys Leu Ser Asp Ile Lys
      195             200             205
Ser Thr Trp Ser Ser Gly Pro Thr Ser His Thr Gln Ala Ser Leu Ser
      210             215             220
His Glu Leu Trp Lys Val Pro Arg Asn Ser Thr Ala Pro Thr Arg Pro
      225             230             235             240
Pro Pro Gly Leu Thr Asn Pro Lys Pro Ser Ser Thr Trp Gly Ala Ser
      245             250             255
Pro Leu Gly Trp Thr Ser Ser Tyr Ser Ser Gly Ser Ala Trp Ser Thr
      260             265             270
Asp Thr Ser Gly Arg Thr Ser Ser Trp Leu Val Leu Arg Asn Leu Thr
      275             280             285
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Gly Phe Pro Leu Gly Pro Gln Cys Arg
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<210> 3535

<211> 723

<212> DNA

<213> Homo sapiens

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 gta  
 723

&lt;210&gt; 3536

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3536

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 Ile Ala Gly Gly Asn Phe Glu Asp Gln Leu Arg Glu Glu Val Val Gln  
 20 25 30  
 Arg Val Ser Leu Leu Leu Leu Tyr Tyr Ile Ile His Gln Glu Glu Ile  
 35 40 45  
 Cys Ser Ser Lys Leu Asn Met Ser Asn Lys Glu Tyr Lys Phe Tyr Leu  
 50 55 60  
 His Ser Leu Leu Ser Leu Arg Gln Asp Glu Asp Ser Ser Phe Leu Ser  
 65 70 75 80  
 Gln Asn Glu Thr Glu Asp Ile Leu Ala Phe Thr Arg Gln Tyr Phe Asp  
 85 90 95  
 Thr Ser Gln Ser Gln Cys Met Glu Thr Lys Thr Leu Gln Lys Lys Ser  
 100 105 110  
 Gly Ile Val Ser Ser Glu Gly Ala Asn Glu Ser Thr Leu Pro Gln Leu  
 115 120 125  
 Ala Ala Met Ile Ile Thr Leu Ser Leu Gln Gly Val Cys Leu Gly Gln  
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 Gly Asn Leu Pro Ser Pro Asp Tyr Phe Thr Glu Tyr Ile Phe Ser Ser



145  
Leu Asn Arg

150

155

160

<210> 3537  
<211> 714  
<212> DNA  
<213> Homo sapiens

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<210> 3538  
<211> 154  
<212> PRT  
<213> Homo sapiens

<400> 3538  
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 35 40 45  
 Gln Gly Val Ala Pro Gly Phe Arg His Ala Thr Thr Arg Ala Arg  
 50 55 60  
 Ala Thr His Ala Ser Cys Ala His Leu Thr His Thr Pro Leu Pro Gly  
 65 70 75 80  
 His Ala Asp Thr Pro Gln Pro His Thr Ser His Ala Val His Leu Arg  
 85 90 95  
 Leu Leu Thr Ser His Ala Gln Cys Trp Cys Thr Phe Ala Ser His Met

	100		105		110
Leu	Pro	Ser	Pro	Pro	Thr
	115		120		125
Cys	Pro	Ser	Pro	Ser	Leu
	130		135		140
Met	Gln	Trp	Glu	Ser	Gln
145			150		

&lt;210&gt; 3539

&lt;211&gt; 818

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3539

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818

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&lt;210&gt; 3540

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3540

Ser	Val	Cys	Leu	Asp	Ala	Ala	Ala	Asp	Cys	His	Pro	Tyr	Pro	Ala	Ser
1			5					10					15		
Leu	Pro	Val	Cys	Gly	Arg	Pro	Val	Thr	Pro	Ile	Ala	Gln	Asn	Gln	Thr
		20				25						30			
Thr	Leu	Gly	Ser	Ser	Arg	Ala	Lys	Leu	Gly	Asn	Phe	Pro	Trp	Gln	Ala

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      35              40              45
Phe Thr Ser Ile His Gly Arg Gly Gly Gly Ala Leu Leu Gly Asp Arg
  50              55              60
Trp Ile Leu Thr Ala Ala His Thr Val Tyr Pro Lys Asp Ser Val Ser
  65              70              75              80
Leu Arg Lys Asn Gln Ser Val Asn Val Phe Leu Gly His Thr Ala Ile
      85              90              95
Asp Glu Met Leu Lys Leu Gly Asn His Pro Val His Arg Val Val Val
      100              105              110
His Pro Asp Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile
      115              120              125
Ala Leu Leu Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu
      130              135              140
Pro Val Cys Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu
      145              150              155              160
Gly Tyr Val Ser Gly Phe Gly Met Glu Met Gly Trp Leu Thr Thr Glu
      165              170              175
Leu Lys Tyr Ser
      180

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&lt;210&gt; 3541

&lt;211&gt; 722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3541

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&lt;210&gt; 3542

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Arg Gln Glu Pro Asp Asn Thr Gly Val Leu Leu Leu Leu Ser Ser Ile  
 50 55 60  
 His Phe Gln Cys Arg Arg Leu Asp Arg Ser Ala His Phe Ser Thr Leu  
 65 70 75 80  
 Ala Ile Lys Gln Asn Pro Leu Leu Ala Glu Ala Tyr Ser Asn Leu Gly  
 85 90 95  
 Asn Val Tyr Lys Glu Arg Gly Gln Leu Gln Glu Ala Ile Glu His Tyr  
 100 105 110  
 Arg His Ala Leu Arg Leu Lys Pro Asp Phe Ile Asp Gly Tyr Ile Asn  
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 Ala Tyr Val Ser Ala Leu Gln Pro Gly  
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<210> 3543  
 <211> 1206  
 <212> DNA  
 <213> Homo sapiens

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 240  
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<210> 3544

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3544

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			20					25					30		
Lys	Ile	Val	Leu	Phe	Pro	His	Tyr	Glu	Glu	Gly	His	Ile	Pro	Gly	Ile
		35					40					45			
Leu	Ile	Ile	Ile	Phe	Tyr	Gly	Ile	Ser	Ile	Phe	Cys	Leu	Val	Ala	Leu
	50					55					60				
Val	Arg	Ala	Ser	Ile	Thr	Asp	Pro	Gly	Arg	Leu	Pro	Glu	Asn	Pro	Lys
65					70				75					80	
Ile	Pro	His	Gly	Glu	Arg	Glu	Phe	Trp	Glu	Leu	Cys	Asn	Lys	Cys	Asn
			85						90					95	
Leu	Met	Arg	Pro	Lys	Arg	Ser	His	His	Cys	Ser	Arg	Cys	Gly	His	Cys
			100					105						110	
Val	Arg	Arg	Met	Asp	His	His	Cys	Pro	Trp	Ile	Asn	Asn	Cys	Val	Gly
			115				120					125			
Glu	Asp	Asn	His	Trp	Leu	Phe	Leu	Gln	Leu	Cys	Phe	Tyr	Thr	Glu	Leu
	130					135					140				
Leu	Thr	Cys	Tyr	Ala	Leu	Met	Phe	Ser	Phe	Cys	His	Tyr	Tyr	Tyr	Phe
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&lt;210&gt; 3545

&lt;211&gt; 3657

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3545

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<212> PRT

<213> Homo sapiens

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Val	Lys	His	Leu	Arg	His	Ser	Ala	Trp	Pro	Pro	Thr	Leu	Leu	Gln	Met
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Val	His	Thr	Leu	Ala	Ser	Asn	Gly	Ala	Asn	Ser	Ile	Trp	Glu	His	Ser
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Leu	Leu	Asp	Pro	Ala	Gln	Val	Gln	Ser	Gly	Arg	Arg	Lys	Ala	Asn	Pro
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Gln	Asp	Lys	Val	His	Pro	Ile	Lys	Ser	Glu	Phe	Ile	Arg	Ala	Lys	Tyr
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Gln	Met	Leu	Ala	Phe	Val	His	Lys	Leu	Pro	Cys	Arg	Asp	Asp	Asp	Gly



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Gly Asn Leu Glu Thr Cys Leu Arg Leu Leu Ser Leu Gly Ala Gln Ala					
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Asn Phe Phe His Pro Glu Lys Gly Thr Thr Pro Leu His Val Ala Ala					
	180		185		190
Lys Ala Gly Gln Thr Leu Gln Ala Glu Leu Leu Val Val Tyr Gly Ala					
	195		200		205
Asp Pro Gly Ser Pro Asp Val Asn Gly Arg Thr Pro Ile Asp Tyr Ala					
	210		215		220
Arg Gln Ala Gly His His Glu Leu Ala Glu Arg Leu Val Glu Cys Gln					
	225		230		235
Tyr Glu Leu Thr Asp Arg Leu Ala Phe Tyr Leu Cys Gly Arg Lys Pro					
	245		250		255
Asp His Lys Asn Gly His Tyr Ile Ile Pro Gln Met Ala Asp Arg Ser					
	260		265		270
Arg Gln Lys Cys Met Ser Gln Ser Leu Asp Leu Ser Glu Leu Ala Lys					
	275		280		285
Ala Ala Lys Lys Lys Leu Gln Ala Leu Ser Asn Arg Leu Phe Glu Glu					
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Leu Ala Met Asp Val Tyr Asp Glu Val Asp Arg Arg Glu Asn Asp Ala					
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Val Trp Leu Ala Thr Gln Asn His Ser Thr Leu Val Thr Glu Arg Ser					
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Ala Val Pro Phe Leu Pro Val Asn Pro Glu Tyr Ser Ala Thr Arg Asn					
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Gln Gly Arg Gln Lys Leu Ala Arg Phe Asn Ala Arg Glu Phe Ala Thr					
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Leu Ile Ile Asp Ile Leu Ser Glu Ala Lys Arg Arg Gln Gln Gly Lys					
	370		375		380
Ser Leu Ser Ser Pro Thr Asp Asn Leu Glu Leu Ser Leu Arg Ser Gln					
	385		390		395
Ser Asp Leu Asp Asp Gln His Asp Tyr Asp Ser Val Ala Ser Asp Glu					
	405		410		415
Asp Thr Asp Gln Glu Pro Leu Arg Ser Thr Gly Ala Thr Arg Ser Asn					
	420		425		430
Arg Ala Arg Ser Met Asp Ser Ser Asp Leu Ser Asp Gly Ala Val Thr					
	435		440		445
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	450		455		460
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Ala Glu Asn Leu Gln Leu Arg Gln Pro Pro Gly Pro Val Pro Thr Pro					
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Ser Ala Leu Lys Pro Phe Gly Gly Pro Pro Gly Asp Glu Leu Thr Thr					
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Arg Leu Gln Pro Phe His Ser Thr Glu Leu Glu Asp Asp Ala Ile Tyr					

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 <212> DNA  
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<212> PRT

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          290          295          300
Leu Glu Asn Trp Trp Ser Val Leu Glu Pro Pro Leu Phe Leu Lys Ile
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 <213> Homo sapiens

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Ser Lys Glu Lys Glu Arg Ala Ser Leu Asp Lys Lys Arg Asp Lys Asp
50          55          60
Tyr Arg Arg Lys Glu Ile Leu Pro Phe Glu Lys Met Lys Glu Gln Arg
65          70          75          80
Leu Arg Glu His Leu Val Arg Phe Glu Arg Leu Arg Arg Ala Met Glu
85          90          95
Leu Arg Arg Arg Arg Glu Ile Ala Glu Arg Glu Arg Arg Glu Arg Glu
100         105         110
Arg Ile Arg Ile Ile Arg Glu Arg Glu Glu Arg Glu Arg Leu Gln Arg
115         120         125
Glu Arg Glu Arg Leu Glu Ile Glu Arg Gln Lys Leu Glu Arg Glu Arg
130         135         140
Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Ile Arg Ile Glu Gln Glu
145         150         155         160
Arg Arg Lys Glu Ala Glu Arg Ile Ala Arg Glu Arg Glu Glu Leu Arg
165         170         175
Arg Gln Gln Gln Gln Leu Arg Tyr Glu Gln Glu Lys Arg Asn Ser Leu
180         185         190
Lys Arg Pro Arg Asp Val Asp His Arg Arg Asp Asp Pro Tyr Trp Ser
195         200         205
Glu Asn Lys Lys Leu Ser Leu Asp Thr Asp Ala Arg Phe Gly His Gly
210         215         220
Ser Asp Tyr Ser Arg Gln Gln Asn Arg Phe Asn Asp Phe Asp His Arg
225         230         235         240
Glu Arg Gly Arg Phe Pro Glu Ser Ser Ala Val Gln Ser Ser Ser Phe
245         250         255
Glu Arg Arg Asp Arg Phe Val Gly Gln Ser Glu Gly Lys Lys Ala Arg
260         265         270
Pro Thr Ala Arg Arg Glu Asp Pro Ser Phe Glu Arg Tyr Pro Lys Asn
275         280         285
Phe Ser Asp Ser Arg Arg Asn Glu Pro Pro Pro Pro Arg Asn Glu Leu
290         295         300
Arg Glu Ser Asp Arg Arg Glu Val Arg Gly Glu Arg Asp Glu Arg Arg
305         310         315         320
Thr Val Ile Ile His Asp Arg Pro Asp Ile Thr His Pro Arg His Pro
325         330         335
Arg Glu Ala Gly Pro Asn Pro Ser Arg Pro Thr Ser Trp Lys Ser Asp
340         345         350
Gly Ser Met Ser Thr Asp Lys Arg Glu Thr Arg Val Glu Arg Pro Glu
355         360         365
Arg Ser Gly Arg Glu Val Ser Gly His Ser Val Arg Gly Ala Pro Pro

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      370              375              380
Gly Asn Arg Ser Ser Ala Ser Gly Tyr Gly Ser Arg Glu Gly Asp Arg
385              390              395              400
Gly Val Ile Thr Asp Arg Gly Gly Gly Ser Gln His Tyr Pro Glu Glu
      405              410              415
Arg His Val Val Glu Arg His Gly Arg Asp Thr Ser Gly Pro Arg Lys
      420              425              430
Glu Trp His Gly Pro Pro Ser Gln Gly Pro Ser Tyr His Asp Thr Arg
      435              440              445
Arg Met Gly Asp Gly Arg Ala Gly Ala Gly Met Ile Thr Gln His Ser
      450              455              460
Ser Asn Ala Ser Pro Ile Asn Arg Ile Val Gln Ile Ser Gly Asn Ser
465              470              475              480
Met Pro Arg Gly Ser Gly Ser Gly Phe Lys Pro Phe Lys Gly Gly Pro
      485              490              495
Pro Arg Arg Phe
      500

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<210> 3551  
 <211> 545  
 <212> DNA  
 <213> Homo sapiens

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 60  
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 120  
 tttcttgtga ctggctataa attccatgca gtgctggaat gtgcttctca cagtttagagt  
 180  
 gctgagcacc tgttttattt cacactccct tgattcctgg ggtaaattccc atctccgcag  
 240  
 catgggctcc agttaaattc attagtgggc cagatgtgtg tccctgtca gctggccaag  
 300  
 taaccccaact gtttatcgac aggttctcag gaatcagata gctcgcagtc ggccaagaag  
 360  
 gacatgctgg ctgccttgaa gtccaggcag gaagctctgg aggaaacct gcgtcagagg  
 420  
 ctggaggaac tgaagaagct gtgtctccga gaagctgtaa gcctttccta gctcatcccg  
 480  
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 540  
 gtcac  
 545

<210> 3552  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 3552  
 Pro His Cys Leu Ser Thr Gly Ser Gln Glu Ser Asp Ser Ser Gln Ser  
 1 5 10 15  
 Ala Lys Lys Asp Met Leu Ala Ala Leu Lys Ser Arg Gln Glu Ala Leu

	20		25		30										
Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Lys	Leu	Cys	Leu
	35		40		45										
Arg	Glu	Ala	Val	Ser	Leu	Ser									
	50		55												

&lt;210&gt; 3553

&lt;211&gt; 1412

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3553

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tacacagtga ctatggatgt gcattccagg tacagaactg aggcccatca ggatgtggtg
60
ggaagattta atgaaagggtt tattctgtct ctggcctctt gtaagaagtg tctcgtcatt
120
gatgaccagc tcaacatcct gcccatctcc tcccacgttg ccaccatgga ggccctgcct
180
ccccagaetc eggatgagag tcttggtcct tctgatctgg agctgaggga gttgaaggag
240
agettgcagg acaccagcc tgtgggtgtg ttggtggact gctgtaagac tctagaccag
300
gccaaagctg tcttgaaatt tatcgagggc atctctgaaa agaccctgag gagtactggt
360
gcactcacag ctgctcgagg acggggaaaa tctgcagccc tgggattggc gattgctggg
420
gcggtggcat ttgggtactc caatatcttt gttacctccc caagccctga taacctccat
480
actctgtttg aatttgtatt taaaggattt gatgctctgc aatatcagga acatctggat
540
tatgagatta tccagtctct aaatcctgaa tttaacaaag cagtgatcat agtgaatgta
600
tttcgagaac acaggcagac tattcagtat atacatcctg cagatgctgt gaagctgggc
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caggctgaac tagttgtgat tgatgaagct gccgccatcc cctcccccct ggtgaagagc
720
ctacttggcc cctaccttgt ttccatggca tccaccatca atggctatga gggcactggc
780
cggtcactgt ccctcaagct aattcagcag ctccgtcaac agagcgccca gagccaggtc
840
agcaccactg ctgagaataa gaccacgacg acagccagat tggcatcagc gcggacactg
900
catgagggtt ccctccagga gtcaatccga tacgcccttg gggatgcagt ggagaagtgg
960
ctgaatgact tgctgtgcct ggattgcctc aacatcactc ggatagtctc aggtgcccc
1020
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1080
gcctctgaag ttttcctcca acggcttatg gccctctacg tggcttctca ctacaagaac
1140
tctcccaatg atctccagat gctctccgat gcacctctc accatctctt ctgccttctg
1200
cctctgtgc cccccacca gaatgccctt ccaaaagtgc ttgctgttat ccaggatatg
1260

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gaacagaggc gtccttgtgg cagtgatttg ggggaaccact gaggcacag gaattagtgg  
 1320  
 ctttaataact gcattgtggg agttttgaaa ctgtggagtc ctggtctgga accaaggggc  
 1380  
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 1412

<210> 3554

<211> 419

<212> PRT

<213> Homo sapiens

<400> 3554

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Gln	Asp	Val	Val	Gly	Arg	Phe	Asn	Glu	Arg	Phe	Ile	Leu	Ser	Leu	Ala
		20						25					30		
Ser	Cys	Lys	Lys	Cys	Leu	Val	Ile	Asp	Asp	Gln	Leu	Asn	Ile	Leu	Pro
	35						40					45			
Ile	Ser	Ser	His	Val	Ala	Thr	Met	Glu	Ala	Leu	Pro	Pro	Gln	Thr	Pro
	50					55					60				
Asp	Glu	Ser	Leu	Gly	Pro	Ser	Asp	Leu	Glu	Leu	Arg	Glu	Leu	Lys	Glu
65					70				75					80	
Ser	Leu	Gln	Asp	Thr	Gln	Pro	Val	Gly	Val	Leu	Val	Asp	Cys	Cys	Lys
			85					90					95		
Thr	Leu	Asp	Gln	Ala	Lys	Ala	Val	Leu	Lys	Phe	Ile	Glu	Gly	Ile	Ser
		100						105					110		
Glu	Lys	Thr	Leu	Arg	Ser	Thr	Val	Ala	Leu	Thr	Ala	Ala	Arg	Gly	Arg
	115						120					125			
Gly	Lys	Ser	Ala	Ala	Leu	Gly	Leu	Ala	Ile	Ala	Gly	Ala	Val	Ala	Phe
	130					135					140				
Gly	Tyr	Ser	Asn	Ile	Phe	Val	Thr	Ser	Pro	Ser	Pro	Asp	Asn	Leu	His
145					150				155					160	
Thr	Leu	Phe	Glu	Phe	Val	Phe	Lys	Gly	Phe	Asp	Ala	Leu	Gln	Tyr	Gln
			165					170						175	
Glu	His	Leu	Asp	Tyr	Glu	Ile	Ile	Gln	Ser	Leu	Asn	Pro	Glu	Phe	Asn
	180							185					190		
Lys	Ala	Val	Ile	Ile	Val	Asn	Val	Phe	Arg	Glu	His	Arg	Gln	Thr	Ile
	195					200						205			
Gln	Tyr	Ile	His	Pro	Ala	Asp	Ala	Val	Lys	Leu	Gly	Gln	Ala	Glu	Leu
	210					215					220				
Val	Val	Ile	Asp	Glu	Ala	Ala	Ala	Ile	Pro	Leu	Pro	Leu	Val	Lys	Ser
225					230				235					240	
Leu	Leu	Gly	Pro	Tyr	Leu	Val	Phe	Met	Ala	Ser	Thr	Ile	Asn	Gly	Tyr
			245					250						255	
Glu	Gly	Thr	Gly	Arg	Ser	Leu	Ser	Leu	Lys	Leu	Ile	Gln	Gln	Leu	Arg
		260						265					270		
Gln	Gln	Ser	Ala	Gln	Ser	Gln	Val	Ser	Thr	Thr	Ala	Glu	Asn	Lys	Thr
	275						280					285			
Thr	Thr	Thr	Ala	Arg	Leu	Ala	Ser	Ala	Arg	Thr	Leu	His	Glu	Val	Ser
	290				295						300				
Leu	Gln	Glu	Ser	Ile	Arg	Tyr	Ala	Pro	Gly	Asp	Ala	Val	Glu	Lys	Trp
305					310				315					320	
Leu	Asn	Asp	Leu	Leu	Cys	Leu	Asp	Cys	Leu	Asn	Ile	Thr	Arg	Ile	Val

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<400> 3555
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120
atgaaccagg cgttgcagag gcgcttcgcc aaggggggtgc agtacaacat gaagatagtg
180
atccgggggag acaggaacac gggcaagaca gcgctgtggc accgcctgca gggccggccg
240
ttcgtggagg agtacatccc cacacaggag atccagggtca ccagcatcca ctggagctac
300
aagaccacgg atgacatcgt gaaggttgaa gtctgggatg tagtagacaa aggaaaatgc
360
aaaagcgcgag gcgacggctt aaagatggag aacgaccccc agggaggcga gtctgaaatg
420
gccctggatg ctgagttcct ggaacgtgtc aagaactgca acgggggtggt catgatgttc
480
gacattacca agcagtggtgac cttcaattac attctccggg agcttccaaa agtgcccacc
540
cacgtgccag tgtgcgtgct ggggaactac cgggacatgg gcgagcaccg agtcacennc
600
tgccggacgn acgtgcgtga cttcatcgac aacctggaca gacctccagg ttctctctac
660
ttccgctatg ctgagtcctt catgaagaac agcttcggcc taaagtacct tcataagttc
720
ttcaatatcc catttttgca gcttcagagg gagacgtgtg tgcggcagct ggagacgaac
780
cagctggaca tggacgccac gctggaggag ctgtcgggtgc agcaggagac ggaggaccag
840
aactacggca tcttcctgga gatgatggag gctcgcagcc gtggccatgc gtccccactg
900
gcggccaacg ggcagagccc atccccgggc tcccagtcac cagtgggtgcc tgcaggcgct
960
gtgtccacgg ggagctccag ccccggcaca gccacagccc ccccacagct gccctcaat
1020

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ggttgcccca ccatactc  
1038

<210> 3556

<211> 333

<212> PRT

<213> Homo sapiens

<400> 3556

Met	Phe	Ser	Ala	Leu	Lys	Lys	Leu	Val	Gly	Ser	Asp	Gln	Ala	Pro	Gly
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Arg	Asp	Lys	Asn	Ile	Pro	Ala	Gly	Leu	Gln	Ser	Met	Asn	Gln	Ala	Leu
			20					25					30		
Gln	Arg	Arg	Phe	Ala	Lys	Gly	Val	Gln	Tyr	Asn	Met	Lys	Ile	Val	Ile
		35					40					45			
Arg	Gly	Asp	Arg	Asn	Thr	Gly	Lys	Thr	Ala	Leu	Trp	His	Arg	Leu	Gln
	50					55					60				
Gly	Arg	Pro	Phe	Val	Glu	Tyr	Ile	Pro	Thr	Gln	Glu	Ile	Gln	Val	
65					70				75					80	
Thr	Ser	Ile	His	Trp	Ser	Tyr	Lys	Thr	Thr	Asp	Asp	Ile	Val	Lys	Val
			85						90					95	
Glu	Val	Trp	Asp	Val	Val	Asp	Lys	Gly	Lys	Cys	Lys	Lys	Arg	Gly	Asp
			100					105					110		
Gly	Leu	Lys	Met	Glu	Asn	Asp	Pro	Gln	Glu	Ala	Glu	Ser	Glu	Met	Ala
		115					120					125			
Leu	Asp	Ala	Glu	Phe	Leu	Asp	Val	Tyr	Lys	Asn	Cys	Asn	Gly	Val	Val
	130					135					140				
Met	Met	Phe	Asp	Ile	Thr	Lys	Gln	Trp	Thr	Phe	Asn	Tyr	Ile	Leu	Arg
145					150					155					160
Glu	Leu	Pro	Lys	Val	Pro	Thr	His	Val	Pro	Val	Cys	Val	Leu	Gly	Asn
			165						170					175	
Tyr	Arg	Asp	Met	Gly	Glu	His	Arg	Val	Ile	Xaa	Cys	Arg	Thr	Xaa	Val
			180					185					190		
Arg	Asp	Phe	Ile	Asp	Asn	Leu	Asp	Arg	Pro	Pro	Gly	Ser	Ser	Tyr	Phe
	195						200					205			
Arg	Tyr	Ala	Glu	Ser	Ser	Met	Lys	Asn	Ser	Phe	Gly	Leu	Lys	Tyr	Leu
	210					215					220				
His	Lys	Phe	Phe	Asn	Ile	Pro	Phe	Leu	Gln	Leu	Gln	Arg	Glu	Thr	Leu
225					230					235					240
Leu	Arg	Gln	Leu	Glu	Thr	Asn	Gln	Leu	Asp	Met	Asp	Ala	Thr	Leu	Glu
			245						250					255	
Glu	Leu	Ser	Val	Gln	Gln	Glu	Thr	Glu	Asp	Gln	Asn	Tyr	Gly	Ile	Phe
			260					265					270		
Leu	Glu	Met	Met	Glu	Ala	Arg	Ser	Arg	Gly	His	Ala	Ser	Pro	Leu	Ala
	275						280					285			
Ala	Asn	Gly	Gln	Ser	Pro	Ser	Pro	Gly	Ser	Gln	Ser	Pro	Val	Val	Pro
	290					295					300				
Ala	Gly	Ala	Val	Ser	Thr	Gly	Ser	Ser	Ser	Pro	Gly	Thr	Ala	Gln	Pro
305					310					315					320
Ala	Pro	Gln	Leu	Pro	Leu	Asn	Gly	Cys	Pro	Thr	Ile	Leu			
			325						330						

&lt;210&gt; 3557

<211> 486

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3557

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60  
ccggcattga tcaagtccat ctgggctatg gccataagcc aacaccagtt ctatctggac  
120  
agaaaagcaga gtaagtccaa aatccatgca gcacgcagcc tgagtgcgat cgccatcgac  
180  
ctgaccgaga cggggacgct gaagacctcg aagctggcca acatgggtag caaggggaag  
240  
atcatcagcg gcagcagcgg cagcctgctg tcttcaggat ctgggtgccag gagacactgc  
300  
attctactcc caggttctca ggaatcagat agctcgagc cgccaagaa ggacatgctg  
360  
gctgccttga agtccaggca ggaagctctg gaggaaccac tgcgtcagag gctggaggaa  
420  
ctgaagaagc tgtgtctccg agaagctgag ctcacgggca agctgccagt agaatatccc  
480  
ctggat  
486

&lt;210&gt; 3558

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3558

Ser	Val	Thr	Arg	Arg	Thr	Phe	Gly	His	Ser	Gly	Ile	Ala	Val	His	Thr
1				5					10					15	
Trp	Tyr	Ala	Cys	Pro	Ala	Leu	Ile	Lys	Ser	Ile	Trp	Ala	Met	Ala	Ile
			20					25					30		
Ser	Gln	His	Gln	Phe	Tyr	Leu	Asp	Arg	Lys	Gln	Ser	Lys	Ser	Lys	Ile
		35					40					45			
His	Ala	Ala	Arg	Ser	Leu	Ser	Glu	Ile	Ala	Ile	Asp	Leu	Thr	Glu	Thr
	50					55					60				
Gly	Thr	Leu	Lys	Thr	Ser	Lys	Leu	Ala	Asn	Met	Gly	Ser	Lys	Gly	Lys
65					70					75				80	
Ile	Ile	Ser	Gly	Ser	Ser	Gly	Ser	Leu	Leu	Ser	Ser	Gly	Ser	Gly	Ala
			85					90					95		
Arg	Arg	His	Cys	Ile	Leu	Leu	Pro	Gly	Ser	Gln	Glu	Ser	Asp	Ser	Ser
			100					105					110		
Gln	Ser	Ala	Lys	Lys	Asp	Met	Leu	Ala	Ala	Leu	Lys	Ser	Arg	Gln	Glu
		115					120					125			
Ala	Leu	Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Lys	Leu
	130					135					140				
Cys	Leu	Arg	Glu	Ala	Glu	Leu	Thr	Gly	Lys	Leu	Pro	Val	Glu	Tyr	Pro
145					150					155				160	
Leu	Asp														

&lt;210&gt; 3559

&lt;211&gt; 673

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3559

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120
gccggcgaag caggggctat cgagcgggtc ctgagggatt acagcgacaa gcatagggtc
180
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240
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300
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360
ctgctgcgac tagccaagct aaatgagtta gatgattctt tggagaaaagt atcagagttc
420
ccagttattg tggagtcatt aaaatgtctg tgtaatatag tgttcaacag tcagatggca
480
cagcagctca gcctggaact taatcttgct gcaaagctct gtaacctcct gagaaagtc
540
aaggaccgga aatttatcaa tgacattaag tgctttgact tgcgcttgct cttccttctg
600
tcacttttgc acaccgacat caggtcacaa ttgcgctatg agtccaggg actaccgctg
660
ctaacgcaga tcg
673

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&lt;210&gt; 3560

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3560

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Met Asp Glu Glu Arg Ala Leu Tyr Ile Val Arg Ala Gly Glu Ala Gly
1      5      10      15
Ala Ile Glu Arg Val Leu Arg Asp Tyr Ser Asp Lys His Arg Ala Thr
20     25     30
Phe Lys Phe Glu Ser Thr Asp Glu Asp Lys Arg Lys Lys Leu Cys Glu
35     40     45
Gly Ile Phe Lys Val Leu Ile Lys Asp Ile Pro Thr Thr Cys Gln Val
50     55     60
Ser Cys Leu Glu Val Leu Arg Ile Leu Ser Arg Asp Lys Lys Val Leu
65     70     75     80
Val Pro Val Thr Thr Lys Glu Asn Met Gln Ile Leu Leu Arg Leu Ala
85     90     95
Lys Leu Asn Glu Leu Asp Asp Ser Leu Glu Lys Val Ser Glu Phe Pro
100    105    110
Val Ile Val Glu Ser Leu Lys Cys Leu Cys Asn Ile Val Phe Asn Ser
115    120    125
Gln Met Ala Gln Gln Leu Ser Leu Glu Leu Asn Leu Ala Ala Lys Leu
130    135    140
Cys Asn Leu Leu Arg Lys Cys Lys Asp Arg Lys Phe Ile Asn Asp Ile

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<210> 3561
<211> 523
<212> DNA
<213> Homo sapiens
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<211> 106
<212> PRT
<213> Homo sapiens
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2721

<210> 3563  
 <211> 359  
 <212> DNA  
 <213> Homo sapiens

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 120  
 cccctgccgc cgtcgacggg gccccagtg ggcgcgggccc tggacgcgga gcagcgcacg  
 180  
 gtgttcgcct tcgtgctctg cctgctcgtg gtgctggtgc tgttgatggt gcgctgcgtg  
 240  
 cgcctcctgc tcgaccctca cagccgcatg cccgcctcgt cctggaccga ccacaaggag  
 300  
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 359

<210> 3564  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 3564  
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 Gly Pro Pro Val Gly Ala Gly Leu Asp Ala Glu Gln Arg Thr Val Phe  
 20 25 30  
 Ala Phe Val Leu Cys Leu Leu Val Val Leu Val Leu Leu Met Val Arg  
 35 40 45  
 Cys Val Arg Ile Leu Leu Asp Pro Tyr Ser Arg Met Pro Ala Ser Ser  
 50 55 60  
 Trp Thr Asp His Lys Glu Ala Leu Glu Arg Gly Gln Phe Asp Tyr Ala  
 65 70 75 80  
 Leu Val

<210> 3565  
 <211> 580  
 <212> DNA  
 <213> Homo sapiens

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 120  
 aggacgagcg cgcacttcaa gtcccagaag cccccgtttc ctggagcccg cgccgtgccg  
 180  
 cgctacgccc gccgggagcc gggcagagcg gccaagatgt cgagcccaa gaaaagaaag  
 240  
 cttgagtcgg ggggcggcgc cgaaggaggg gaggggaactg aagaggaaga tggcgcggag  
 300

cgggaggcgg ccctggagcg accccggacg actaagcggg aacgggacca gctgtactac  
 360  
 gagtgctact cggacgtttc ggtccacgag gagatgatcg cggaccgcgt ccgcaccgat  
 420  
 gcctaccgct gggtttccct tcggaactgg gcagcactgc gaggcaagac ggtactggac  
 480  
 gtgggcgcgg gcaccggcat tctgagcatc ttctgtgcc aggccggggc ccggcgcgtg  
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<210> 3566  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

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 Arg Ala Thr Pro Gln Glu Val Gly Arg Thr Ser Ala His Phe Lys Ser  
 35 40 45  
 Gln Lys Pro Pro Phe Pro Gly Ala Arg Ala Val Pro Arg Tyr Ala Arg  
 50 55 60  
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&lt;211&gt; 869

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&lt;213&gt; Homo sapiens

&lt;400&gt; 3568

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&lt;400&gt; 3569

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<212> PRT

<213> Homo sapiens

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		210			215						220				
Glu	Thr	Thr	Ala	Asn	Asn	Met	Arg	Lys	Lys	Gly	Lys	Pro	Asn	Pro	Asp
225				230						235				240	
Gln	Arg	Tyr	Phe	Met	Leu	Val	Val	Ala	Leu	Gln	Ala	His	Ala	Gln	Asn
			245					250					255		
Gln	Asn	Tyr	Thr	Leu	Ala	Ala	Gln	Ile	Ser	Glu	Arg	Ile	Ile	Val	Arg
		260					265					270			
Ala	Ser	Asn	Pro	Gly	Gln	Phe	Glu	Ser	Asp	Ser	Asp	Val	Leu	Trp	Gln
		275					280					285			
Arg	Ala	Gln	Val	Pro	Asp	Thr	Val	Phe	His	His	Gly	Arg	Val	Gly	Ile
		290			295						300				
Asn	Thr	Asp	Arg	Pro	Asp	Glu	Ala	Leu	Val	Val	His	Gly	Asn	Val	Lys
305				310						315				320	
Val	Met	Gly	Ser	Leu	Met	His	Pro	Ser	Asp	Leu	Arg	Ala	Lys	Glu	His
			325					330					335		
Val	Gln	Glu	Val	Asp	Thr	Thr	Glu	Gln	Leu	Lys	Arg	Ile	Ser	Arg	Met



			340						345						350			
Arg	Leu	Val	His	Tyr	Arg	Tyr	Lys	Pro	Glu	Phe	Ala	Ala	Ser	Ala	Gly			
		355					360					365						
Ile	Glu	Ala	Thr	Ala	Pro	Glu	Thr	Gly	Val	Ile	Ala	Gln	Glu	Val	Lys			
	370					375					380							
Glu	Ile	Leu	Pro	Glu	Ala	Val	Lys	Asp	Thr	Gly	Asp	Met	Val	Phe	Ala			
385					390					395					400			
Asn	Gly	Lys	Thr	Ile	Glu	Asn	Phe	Leu	Val	Val	Asn	Lys	Glu	Arg	Ile			
				405					410					415				
Phe	Met	Glu	Asn	Val	Gly	Ala	Val	Lys	Glu	Leu	Cys	Lys	Leu	Thr	Asp			
			420					425					430					
Asn	Leu	Glu	Thr	Arg	Ile	Asp	Glu	Leu	Glu	Arg	Trp	Ser	His	Lys	Leu			
	435						440					445						
Ala	Lys	Leu	Arg	Arg	Leu	Asp	Ser	Leu	Lys	Ser	Thr	Gly	Ser	Ser	Gly			
	450					455						460						
Ala	Phe	Ser	His	Ala	Gly	Ser	Gln	Phe	Ser	Arg	Ala	Gly	Ser	Val	Pro			
465					470					475					480			
His	Lys	Lys	Arg	Pro	Pro	Lys	Val	Ala	Ser	Lys	Ser	Ser	Ser	Val	Val			
				485					490					495				
Pro	Asp	Gln	Ala	Cys	Ile	Ser	Gln	Arg	Phe	Leu	Gln	Gly	Thr	Ile	Ile			
			500					505					510					
Ala	Leu	Val	Val	Val	Met	Ala	Phe	Ser	Val	Val	Ser	Met	Ser	Thr	Leu			
	515						520					525						
Tyr	Val	Leu	Ser	Leu	Arg	Thr	Glu	Glu	Asp	Leu	Val	Asp	Thr	Asp	Gly			
	530					535						540						
Ser	Phe	Ala	Val	Ser	Thr	Ser	Cys	Leu	Leu	Ala	Leu	Leu	Arg	Pro	Gln			
545					550					555					560			
Pro	Pro	Gly	Gly	Ser	Glu	Ala	Leu	Cys	Pro	Trp	Ser	Ser	Gln	Ser	Phe			
				565					570					575				
Gly	Thr	Thr	Gln	Leu	Arg	Gln	Ser	Pro	Leu	Thr	Thr	Gly	Leu	Pro	Gly			
			580					585					590					
Ile	Gln	Pro	Ser	Leu	Leu	Leu	Val	Thr	Thr	Ser	Leu	Thr	Ser	Ser	Ala			
	595						600					605						
Pro	Gly	Ser	Ala	Val	Arg	Thr	Leu	Asp	Met	Cys	Ser	Ser	His	Pro	Cys			
	610					615					620							
Pro	Val	Ile	Cys	Cys	Ser	Ser	Pro	Thr	Thr	Asn	Pro	Thr	Thr	Gly	Pro			
625					630					635					640			
Ser	Leu	Gly	Pro	Ser	Phe	Asn	Pro	Gly	His	Val	Leu	Ser	Pro	Ser	Pro			
				645					650					655				
Ser	Pro	Ser	Thr	Asn	Arg	Ser	Gly	Pro	Ser	Gln	Met	Ala	Leu	Leu	Pro			
			660					665					670					
Val	Thr	Asn	Ile	Arg	Ala	Lys	Ser	Trp	Gly	Leu	Ser	Val	Asn	Gly	Ile			
	675						680					685						

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      770              775              780
Asn Phe Thr Tyr His Ile Pro Val Ser Ser Gly Thr Pro Leu His Leu
785              790              795              800
Ser Leu Thr Leu Gln Met Asn Ser Ser Ser Pro Val Ser Val Val Leu
      805              810              815
Cys Ser Leu Arg Ser Lys Glu Glu Pro Cys Glu Glu Gly Ser Leu Pro
      820              825              830
Gln Ser Leu His Thr His Gln Asp Thr Gln Gly Thr Ser His Arg Trp
      835              840              845
Pro Ile Thr Ile Leu Ser Phe Arg Glu Phe Thr Tyr His Phe Arg Val
      850              855              860
Ala Leu Leu Gly Gln Ala Asn Cys Ser Ser Glu Ala Leu Ala Gln Pro
865              870              875              880
Ala Thr Asp Tyr His Phe His Phe Tyr Arg Leu Cys Asp
      885              890

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&lt;210&gt; 3571

&lt;211&gt; 528

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3571

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120
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180
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240
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300
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360
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420
ctgctgttac cagaagaggg atccaggcca cacggaaggg agtcgtgtcg tggtttaccc
480
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528

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&lt;210&gt; 3572

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3572

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Thr Arg Pro Leu Ser Gly Leu Val Trp Val Ala Leu Leu Ala Leu Gly
1              5              10              15
His Ala Phe Leu Phe Thr Gly Gly Val Val Ser Ala Trp Asp Gln Val
      20              25              30
Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu
      35              40              45
Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His

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50		55		60
Leu Leu Val Leu Gly	Leu Tyr Leu Gly Pro Gln	Pro Asp Ser Arg Pro		
65	70	75	80	
Ala Leu Leu Pro Gln Val Ser Thr Gln Val Ala Gln Ala Ala Leu Arg				
	85	90	95	
Thr Ala Leu Pro Arg Ala Ser Arg Leu Leu Leu Gly Gly Cys				
100	105	110		

&lt;210&gt; 3573

&lt;211&gt; 1236

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3573

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60
tagccccaga ttaagggggc agtttctttc tttccggcca ccagcgggca ggatcacccc
120
ccctgcctgc tccccaaagc ccagccttca gcccccccaa tcaatcccag ccacacacac
180
agtcccattt tttccatcca ttctgggtact tgtgtgttca ataaacctgg tggacacaca
240
gcttcacata cccacacact cacagccaca aaccacagaa gtcattgcaca tgccgacgca
300
ccttgtggca catgcacaca caaccacact tgtgtgcaaa gtggcagaca caccacaca
360
tgcatagaag caagtctctg gacccttctt gcatccacaca gagggggctc ccctgctgtg
420
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480
cggcagttcc ctccagactt cagggaccag gaagctatgc agatggtgcc taaattctgc
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600
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660
agctgtctct gtatccctcag ccacctgcct tggttcgagg tggtttacaa gctattgaac
720
acagtgggag acctcctagc ccaggaccaa gtcaccgagg cagagggaact tcttcaaaat
780
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900
tcctgcttcg tgcccccgga ctccggccgc ctgccatcca tccctgagaa caggaacctc
960
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1020
gccgagagaa gagtcctgct caccgccagc aaactcagca ccctgaggcg gggcccgccg
1080
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1140
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1200

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1236

<210> 3574  
<211> 361  
<212> PRT  
<213> Homo sapiens

<400> 3574  
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Asp His Pro Pro Cys Leu Leu Pro Lys Ala Gln Pro Ser Ala Pro Pro  
20 25 30  
Ile Asn Pro Ser His Thr His Ser Pro Ile Phe Ser Ile His Ser Gly  
35 40 45  
Thr Cys Val Phe Asn Lys Pro Gly Gly His Thr Ala Ser His Thr His  
50 55 60  
Thr Leu Thr Ala Thr Asn Pro Arg Ser His Ala His Ala Asp Ala Pro  
65 70 75 80  
Cys Gly Thr Cys Thr His Asn His Thr Cys Val Gln Ser Gly Arg His  
85 90 95  
Thr His Thr Cys Ile Glu Ala Ser Leu Trp Thr Pro Ser Ala Ser His  
100 105 110  
Arg Gly Gly Ser Pro Ala Val Phe Asp Trp Phe Phe Glu Ala Ala Cys  
115 120 125  
Pro Ala Ser Val Gln Glu Asp Pro Pro Ile Leu Arg Gln Phe Pro Pro  
130 135 140  
Asp Phe Arg Asp Gln Glu Ala Met Gln Met Val Pro Lys Phe Cys Phe  
145 150 155 160  
Pro Phe Asp Val Glu Arg Gly Pro Pro Ser Pro Ala Val Gln His Phe  
165 170 175  
Thr Phe Ala Leu Thr Asp Leu Ala Gly Asn Arg Arg Phe Gly Phe Cys  
180 185 190  
Arg Leu Arg Ala Gly Thr Gln Ser Cys Leu Cys Ile Leu Ser His Leu  
195 200 205  
Pro Trp Phe Glu Val Phe Tyr Lys Leu Leu Asn Thr Val Gly Asp Leu  
210 215 220  
Leu Ala Gln Asp Gln Val Thr Glu Ala Glu Glu Leu Leu Gln Asn Leu  
225 230 235 240  
Phe Gln Gln Ser Leu Ser Gly Pro Gln Ala Ser Val Gly Leu Glu Leu  
245 250 255  
Gly Ser Gly Val Thr Val Ser Ser Gly Gln Gly Ile Pro Pro Pro Thr  
260 265 270  
Arg Gly Asn Ser Lys Pro Leu Ser Cys Phe Val Ala Pro Asp Ser Gly  
275 280 285  
Arg Leu Pro Ser Ile Pro Glu Asn Arg Asn Leu Thr Glu Leu Val Val  
290 295 300  
Ala Val Thr Asp Glu Asn Ile Val Gly Leu Phe Ala Ala Leu Leu Ala  
305 310 315 320  
Glu Arg Arg Val Leu Leu Thr Ala Ser Lys Leu Ser Thr Leu Arg Arg  
325 330 335  
Gly Pro Pro Gly Arg Gly Gly Ser Arg Ala Trp Leu Arg Pro Gly Gly  
340 345 350  
Arg Asp Lys Gly Ala Asp Ser Leu Leu

355

360

&lt;210&gt; 3575

&lt;211&gt; 769

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3575

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 60  
 gcataaagc aacgtgaggt gcagttggag gataaatatg atagtttggg aacaccattc  
 120  
 cagtcaaagg tgctggaggt gtgtctgtat agaagtaagt cgtccacca acagtttcct  
 180  
 tttggatcac ctgaccagaa gacggagtct gagaaacagg attattaaca gatgtagagg  
 240  
 cactagaagg caccatgtaa cttgctggat ttggagtgtg acttcttctt ctgggagcag  
 300  
 gagaagtatg tggagtaatc ttgggggaat gaagagggga agaccagca gacaacgaca  
 360  
 ttctgaaga ggatgtaaaa atgtttctta atggagcaat aattggtttt agagaacaag  
 420  
 tctggaaaat aaaatgcaaa cattcatttg gaagaaacat catctttggg atcgtaagt  
 480  
 caaagatgaa ggaaataatt ttatcttggt ttgttgtaga aaaagctctg attaaagcaa  
 540  
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 600  
 gaatagtctc ctccatatca aggtttacat caggaaattt aatagcaaga gtgacaaaa  
 660  
 atttaataaa ttaatggaag agtgggaagt aacagaattg tggctcttta taaaattatg  
 720  
 ccttttataa aagtttttct tttataaaag gcataattcc ttttttatt  
 769

&lt;210&gt; 3576

&lt;211&gt; 205

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3576

Met	Glu	Glu	Thr	Ile	Leu	Ala	Val	Asn	Leu	Leu	Thr	Tyr	Leu	Glu	Ile
1				5				10					15		
Ser	Thr	Phe	Glu	Lys	Arg	Asn	Phe	Thr	Phe	Ala	Leu	Ile	Arg	Ala	Phe
			20					25					30		
Ser	Thr	Thr	Lys	Gln	Asp	Lys	Ile	Ile	Ser	Phe	Ile	Phe	Ala	Leu	Thr
			35				40					45			
Ile	Pro	Lys	Met	Met	Phe	Leu	Pro	Asn	Glu	Cys	Leu	His	Phe	Ile	Phe
			50			55					60				
Gln	Thr	Cys	Ser	Leu	Lys	Pro	Ile	Ile	Ala	Pro	Leu	Arg	Asn	Ile	Phe
65					70				75					80	
Thr	Ser	Ser	Ser	Gly	Met	Ser	Leu	Ser	Ala	Gly	Ser	Ser	Pro	Leu	His
				85				90					95		
Ser	Pro	Lys	Ile	Thr	Pro	His	Thr	Ser	Pro	Ala	Pro	Arg	Arg	Arg	Ser

	100		105		110
His Thr Pro Asn Pro Ala Ser Tyr Met Val Pro Ser Ser Ala Ser Thr					
	115		120		125
Ser Val Asn Asn Pro Val Ser Gln Thr Pro Ser Ser Gly Gln Val Ile					
	130		135		140
Gln Lys Glu Thr Val Gly Gly Thr Thr Tyr Phe Tyr Thr Asp Thr Thr					
145		150		155	160
Pro Ala Pro Leu Thr Gly Met Val Phe Pro Asn Tyr His Ile Tyr Pro					
	165		170		175
Pro Thr Ala Pro His Val Ala Tyr Met Gln Pro Lys Ala Asn Ala Pro					
	180		185		190
Ser Phe Phe Met Ala Asp Glu Leu Arg Gln Glu Leu Ile					
195		200		205	

&lt;210&gt; 3577

&lt;211&gt; 1225

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3577

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120
gtgattgggg agagcatgta cggggacttt gaggaagctt ttgaccatct gcagaacaga
180
ctgatcgcca ccaagaaccc agaagaaatc agaggcgggg gactttctca gtacagcaac
240
cttcttgtgc gggacttcag gccacagac caggaagaaa tcaaaactct agagcgctac
300
atgtgctcca ggttcttcat cgacttcccg gacatccttg aacagcagag gaagttggag
360
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420
cttcgcaggg tggatgaagc gagcaccgtg tgtctcatgg ggcaggaacg caggcagact
480
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540
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600
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720
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780
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840
tcatgagcca accctcaaag gaccggtatt acagtggcac gttggaaaac gctacaggaa
900
gcataccta tccacatctt tccaagatag aactaacat gtcagtgtcc aacatttag
960
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1020

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 1140  
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 1200  
 agttgcttat gtttattccc tgtca  
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<210> 3578

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3578

Val	Asp	Ser	Ile	Arg	Gln	Phe	Glu	Phe	Ser	Val	Asp	Ser	Phe	Gln	
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Ile	Ile	Leu	Asp	Ser	Leu	Leu	Phe	Phe	Tyr	Asp	Cys	Ser	Asn	Asn	Pro
		20						25					30		
Ile	Ser	Glu	His	Phe	His	Pro	Thr	Val	Ile	Gly	Glu	Ser	Met	Tyr	Gly
		35					40					45			
Asp	Phe	Glu	Glu	Ala	Phe	Asp	His	Leu	Gln	Asn	Arg	Leu	Ile	Ala	Thr
	50					55					60				
Lys	Asn	Pro	Glu	Glu	Ile	Arg	Gly	Gly	Gly	Leu	Leu	Lys	Tyr	Ser	Asn
65					70					75				80	
Leu	Leu	Val	Arg	Asp	Phe	Arg	Pro	Thr	Asp	Gln	Glu	Glu	Ile	Lys	Thr
				85					90					95	
Leu	Glu	Arg	Tyr	Met	Cys	Ser	Arg	Phe	Phe	Ile	Asp	Phe	Pro	Asp	Ile
		100						105					110		
Leu	Glu	Gln	Gln	Arg	Lys	Leu	Glu	Thr	Tyr	Leu	Gln	Asn	His	Phe	Ala
		115						120					125		
Glu	Glu	Glu	Arg	Ser	Lys	Tyr	Asp	Tyr	Leu	Met	Ile	Leu	Arg	Arg	Val
	130					135					140				
Val	Asn	Glu	Ser	Thr	Val	Cys	Leu	Met	Gly	His	Glu	Arg	Arg	Gln	Thr
145					150					155				160	
Leu	Asn	Leu	Ile	Ser	Leu	Leu	Ala	Leu	Arg	Val	Leu	Gly	Gly	Thr	Lys
				165					170					175	
His	His	Pro	Pro	Val	Pro	Pro	Arg	Ser	Pro	Val	Thr	Thr	Ser	Gly	Pro
			180					185					190		
Leu	Ser	Gln													
		195													

<210> 3579

<211> 755

<212> DNA

<213> Homo sapiens

<400> 3579

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 120  
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 180

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 240  
 cttagccatt tctcatgctg ttttgtttct tgcggtggcc acttaacccc aaagaatgaa  
 300  
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 360  
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 420  
 agactagaag attaacaagt ttgggtccac ccctaagaat cagtggctgt cttttaaggt  
 480  
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 aatggtaaat atatgcttta agctctacct ttaaacttgt atgttattca ggcattctct  
 660  
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 755

<210> 3580  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 3580  
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 20 25 30  
 Glu Thr Lys Gln His Glu Lys Trp Leu Ser Gln Pro Thr Cys Ser Asp  
 35 40 45  
 Met Pro Arg Asn Phe Ser Ser Gly Pro Gly Ser Gly Gly Leu Leu Ile  
 50 55 60  
 Phe Ser Gln Asp Ile Val Leu Ser Trp Asn Leu Ala Gly Gly Trp Ser  
 65 70 75 80  
 Ile Cys Ile Trp Ser Ile Ala Arg Leu Ser His Leu Ser Ser Asp Gln  
 85 90 95  
 Lys Cys Ile Ser Lys Ile Ile Thr Ser Thr Lys Thr Ile Ile Asp Cys  
 100 105 110  
 Glu Gln Thr Phe Ser Val Thr Ser Arg  
 115 120

<210> 3581  
 <211> 2132  
 <212> DNA  
 <213> Homo sapiens

<400> 3581  
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 120



ggcgctgct ggacttgtag tcggcgggcg agcagcgct gtacgaggcg cgggaccgcg  
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240  
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780  
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<211> 138

<212> PRT

<213> Homo sapiens

<400> 3582

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<212> DNA

<213> Homo sapiens

<400> 3583

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&lt;210&gt; 3584

&lt;211&gt; 356

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3584

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Ala Glu Ala Val Ala Glu Gly Ala Ser Gly Arg His Gly Gln Gly Arg
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Ser Leu Glu Ala Glu Asp Lys Met Thr His Arg Ile Leu Arg Ala Ala
      100      105      110
Gln Glu Gly Asp Leu Pro Glu Leu Arg Arg Leu Leu Glu Pro His Glu
      115      120      125
Ala Gly Gly Ala Gly Gly Asn Ile Asn Ala Arg Asp Ala Phe Trp Trp
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Thr Pro Leu Met Cys Ala Ala Arg Ala Gly Gln Gly Ala Ala Val Ser
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&lt;210&gt; 3585

&lt;211&gt; 2782

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3585

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&lt;210&gt; 3586

&lt;211&gt; 663

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3586

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&lt;211&gt; 3148

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3587

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<210> 3588

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3588

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Glu	Glu	Glu	Gly	Gly	Ser	Tyr	Gly	Glu	Glu	Glu	Glu	Glu	Pro	Ala	Ile
			20					25					30		
Glu	Asp	Val	Gln	Glu	Glu	Thr	Gln	Leu	Asp	Leu	Ser	Gly	Asp	Ser	Val
		35				40						45			
Lys	Thr	Ile	Ala	Lys	Leu	Trp	Asp	Ser	Lys	Met	Phe	Ala	Glu	Ile	Met
		50				55					60				
Met	Lys	Ile	Glu	Glu	Tyr	Ile	Ser	Lys	Gln	Ala	Lys	Ala	Ser	Glu	Val
65					70					75				80	
Met	Gly	Pro	Val	Glu	Ala	Ala	Pro	Glu	Tyr	Arg	Val	Ile	Val	Asp	Ala
			85						90					95	
Asn	Asn	Leu	Thr	Val	Glu	Ile	Glu	Asn	Glu	Leu	Asn	Ile	Ile	His	Lys
		100						105						110	
Phe	Ile	Arg	Asp	Lys	Tyr	Ser	Lys	Arg	Phe	Pro	Glu	Leu	Glu	Ser	Leu
		115					120					125			
Val	Pro	Asn	Ala	Leu	Asp	Tyr	Ile	Arg	Thr	Val	Lys	Glu	Leu	Gly	Asn
		130				135					140				
Ser	Leu	Asp	Lys	Cys	Lys	Asn	Asn	Glu	Asn	Leu	Gln	Gln	Ile	Leu	Thr
145					150					155				160	
Asn	Ala	Thr	Ile	Met	Val	Val	Ser	Val	Thr	Ala	Ser	Thr	Thr	Gln	Gly
			165						170					175	
Gln	Gln	Leu	Ser	Glu	Glu	Glu	Leu	Glu	Arg	Leu	Glu	Glu	Ala	Cys	Asp

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      180      185      190
Met Ala Leu Glu Leu Asn Ala Ser Lys His Arg Ile Tyr Glu Tyr Val
      195      200      205
Glu Ser Arg Met Ser Phe Ile Ala Pro Asn Leu Ser Ile Ile Ile Gly
      210      215      220
Ala Ser Thr Ala Ala Lys Ile Met Gly Val Ala Gly Gly Leu Thr Asn
      225      230      235      240
Leu Ser Lys Met Pro Ala Cys Asn Ile Met Leu Leu Gly Ala Gln Arg
      245      250      255
Lys Thr Leu Ser Gly Phe Ser Ser Thr Ser Val Leu Pro His Thr Gly
      260      265      270
Tyr Ile Tyr His Ser Asp Ile Val Gln Ser Leu Pro Pro Asp Leu Arg
      275      280      285
Arg Lys Ala Ala Arg Leu Val Ala Ala Lys Cys Thr Leu Ala Ala Arg
      290      295      300
Val Asp Ser Phe His Glu Ser Thr Glu Gly Lys Val Gly Tyr Glu Leu
      305      310      315      320
Lys Asp Glu Ile Glu Arg Lys Phe Asp Lys Trp Gln Glu Pro Pro Pro
      325      330      335
Val Lys Gln Val Lys Pro Leu Pro Ala Pro Leu Asp Gly Gln Arg Lys
      340      345      350
Lys Arg Gly Gly Arg Arg Tyr Arg Lys Met Lys Glu Arg Leu Gly Leu
      355      360      365
Thr Glu Ile Arg Lys Gln Ala Asn Arg Met Ser Phe Gly Glu Ile Glu
      370      375      380
Glu Asp Ala Tyr Gln Glu Asp Leu Gly Phe Ser Leu Gly His Leu Gly
      385      390      395      400
Lys Ser Gly Ser Gly Arg Val Arg Gln Thr Gln Val Asn Glu Ala Thr
      405      410      415
Lys Ala Arg Ile Ser Lys Thr Leu Gln Arg Thr Leu Gln Lys Gln Ser
      420      425      430
Val Val Tyr Gly Gly Lys Ser Thr Ile Arg Asp Arg Ser Ser Gly Thr
      435      440      445
Ala Ser Ser Val Ala Phe Thr Pro Leu Gln Gly Leu Glu Ile Val Asn
      450      455      460
Pro Gln Ala Ala Glu Lys Lys Val Ala Glu Ala Asn Gln Lys Tyr Phe
      465      470      475      480
Ser Ser Met Ala Glu Phe Leu Lys Val Lys Gly Glu Lys Ser Gly Leu
      485      490      495
Met Ser Thr

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&lt;210&gt; 3589

&lt;211&gt; 675

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3589

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120
aatagttctt gaccaggtc cctccatgaa cctcgaagct gaccagcca taggggggat
180

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accttcattt cagtcccagc agcctccccc aaccagtcag ggtccctgaa gagcatctgg  
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&lt;210&gt; 3590

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3590

Met	Leu	Pro	Thr	Arg	Pro	Pro	Asn	Thr	Leu	Ala	Ser	Gly	Val	Ser	Thr
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Asn	Leu	Ile	Leu	Pro	Ser	Pro	Asp	Ser	Ser	Pro	Gln	Ala	Lys	Pro	Leu
			20					25					30		
Asp	Pro	Met	Ser	Pro	Phe	His	Leu	Ser	Ser	Val	Ile	Leu	Cys	Arg	Pro
		35					40					45			
Ser	Ala	Trp	Pro	Cys	Leu	Arg	Ser	Ser	Pro	Pro	Ala	Ala	Gln	Gly	
	50					55				60					
Ser	Phe	Val	Ser	Ala	Gln	Glu	Gly	Pro	Tyr	Asn	Pro	Ser	Trp	Leu	Trp
65					70				75					80	
Pro	Gly	Pro	Cys	Phe	Val	Ser	Glu	Leu	Gly	Gly	Pro	Ile	Pro	Lys	His
			85					90					95		
Trp	Leu	Gly	Asn	Ser	Tyr	Pro	Ile	Cys	Cys	Leu	Gly	Ser	Ala	Trp	Phe
			100					105					110		
Phe	Thr	His	Ile	Ser											
			115												

&lt;210&gt; 3591

&lt;211&gt; 669

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3591

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 669

&lt;210&gt; 3592

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3592

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		20					25					30			
Lys	Gln	Val	Asn	Trp	Lys	Ala	Cys	Arg	Trp	Ser	Ser	Ser	Gly	Val	Ile
		35					40					45			
Pro	Asn	Glu	Lys	Ile	Arg	Asn	Ile	Gly	Ile	Ser	Ala	His	Ile	Asp	Ser
	50					55				60					
Gly	Lys	Thr	Thr	Leu	Thr	Glu	Arg	Val	Leu	Tyr	Tyr	Thr	Gly	Arg	Ile
65					70				75					80	
Ala	Lys	Met	His	Glu	Val	Lys	Gly	Lys	Asp	Gly	Val	Gly	Ala	Val	Met
			85					90						95	
Asp	Ser	Met	Glu	Leu	Glu	Arg	Gln	Arg	Gly	Ile	Thr	Ile	Gln	Ser	Ala
		100						105					110		
Ala	Thr	Tyr	Thr	Met	Trp	Lys	Asp	Val	Asn	Ile	Asn	Ile	Ile	Asp	Thr
		115					120					125			
Pro	Gly	His	Val	Asp	Phe	Thr	Ile	Glu	Val	Glu	Arg	Ala	Leu	Arg	Val
		130				135					140				
Leu	Asp	Gly	Ala	Val	Leu	Val	Leu	Cys	Ala	Val	Gly	Gly	Val	Gln	Cys
145					150				155					160	
Gln	Thr	Met	Thr	Val	Asn	Arg	Gln	Met	Lys	Arg	Tyr	Asn	Val	Pro	Phe
			165					170					175		
Leu	Thr	Phe	Ile	Asn	Lys	Leu	Asp	Arg	Met	Gly	Ser	Asn	Pro	Ala	Arg
		180						185					190		
Ala	Leu	Gln	Gln	Met	Arg	Ser	Lys	Leu	Asn	His	Asn	Ala	Ala	Phe	Met
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	210						215					220			

<210> 3593  
 <211> 1005  
 <212> DNA  
 <213> Homo sapiens

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 240  
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<210> 3594  
 <211> 282  
 <212> PRT  
 <213> Homo sapiens

<400> 3594  
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 35 40 45  
 Arg Leu Leu Gly Ala Leu Cys Leu Gln Arg Pro Pro Val Val Ser Lys

50	55	60
Pro Leu Thr	Pro Leu Gln Glu Glu Met Ala Ser Leu Leu Gln Gln Ile	
65	70	75
Glu Ile Glu Arg Ser Leu Tyr Ser Asp His Glu Leu Arg Ala Leu Asp		80
	85	90
Glu Asn Gln Arg Leu Ala Lys Lys Lys Ala Asp Leu His Asp Glu Glu		95
	100	105
Asp Glu Gln Asp Ile Leu Leu Ala Gln Asp Leu Glu Asp Met Trp Glu		110
	115	120
Gln Lys Phe Leu Gln Phe Lys Leu Gly Ala Arg Ile Thr Glu Ala Asp		125
	130	135
Glu Lys Asn Asp Arg Thr Ser Leu Asn Arg Lys Leu Asp Arg Asn Leu		140
145	150	155
Val Leu Leu Val Arg Glu Lys Phe Gly Asp Gln Asp Val Trp Ile Leu		160
	165	170
Pro Gln Ala Glu Trp Gln Pro Gly Glu Thr Leu Arg Gly Thr Ala Glu		175
	180	185
Arg Thr Leu Ala Thr Leu Ser Glu Asn Asn Met Glu Ala Lys Phe Leu		190
	195	200
Gly Asn Ala Pro Cys Gly His Tyr Thr Phe Lys Phe Pro Gln Ala Met		205
	210	215
Arg Thr Glu Ser Asn Leu Gly Ala Lys Val Phe Phe Phe Lys Ala Leu		220
225	230	235
Leu Leu Thr Gly Asp Phe Ser Gln Ala Gly Asn Lys Gly His His Val		240
	245	250
Trp Val Thr Lys Asp Glu Leu Gly Asp Tyr Leu Lys Pro Lys Tyr Leu		255
	260	265
Ala Gln Val Arg Arg Phe Val Ser Asp Leu		270
	275	280

&lt;210&gt; 3595

&lt;211&gt; 1903

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3595

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540

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gacagctagg gttcaaaacg ttctcaccaa atccaatgct cctcacatat taattttata  
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accagacaaa taaatattag agacaaccac catcaaaaaa aaa  
1903

&lt;210&gt; 3596

&lt;211&gt; 496

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3596

Phe Gln Val Thr Arg Gly Asp Tyr Ala Pro Ile Leu Gln Lys Val Val



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Glu Gln Leu Glu Lys Ala Lys Ala Tyr Ala Ala Asn Ser His Gln Gly			
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Gln Met Leu Ala Gln Tyr Ile Glu Ser Phe Thr Gln Gly Ser Ile Glu			
	35	40	45
Ala His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro Ile			
	50	55	60
Val Glu Ser Tyr Ile Gly Phe Ile Glu Ser Tyr Arg Asp Pro Phe Gly			
65	70	75	80
Ser Arg Gly Glu Phe Glu Gly Phe Val Ala Val Val Asn Lys Ala Met			
	85	90	95
Ser Ala Lys Phe Glu Arg Leu Val Ala Ser Ala Glu Gln Leu Leu Lys			
	100	105	110
Glu Leu Pro Trp Pro Pro Thr Phe Glu Lys Asp Lys Phe Leu Thr Pro			
	115	120	125
Asp Phe Thr Ser Leu Asp Val Leu Thr Phe Ala Gly Ser Gly Ile Pro			
	130	135	140
Ala Gly Ile Asn Ile Pro Asn Tyr Asp Asp Leu Arg Gln Thr Glu Gly			
145	150	155	160
Phe Lys Asn Val Ser Leu Gly Asn Val Leu Ala Val Ala Tyr Ala Thr			
	165	170	175
Gln Arg Glu Lys Leu Thr Phe Leu Glu Glu Asp Asp Lys Asp Leu Tyr			
	180	185	190
Ile Leu Trp Lys Gly Pro Ser Phe Asp Val Gln Val Gly Leu His Glu			
	195	200	205
Leu Leu Gly His Gly Ser Gly Lys Leu Phe Val Gln Asp Glu Lys Gly			
	210	215	220
Ala Phe Asn Phe Asp Gln Glu Thr Val Ile Asn Pro Glu Thr Gly Glu			
225	230	235	240
Gln Ile Gln Ser Trp Tyr Arg Ser Gly Glu Thr Trp Asp Ser Lys Phe			
	245	250	255
Ser Thr Ile Ala Ser Ser Tyr Glu Glu Cys Arg Ala Glu Ser Val Gly			
	260	265	270
Leu Tyr Leu Cys Leu His Pro Gln Val Leu Glu Ile Phe Gly Phe Glu			
	275	280	285
Gly Ala Asp Ala Glu Asp Val Ile Tyr Val Asn Trp Leu Asn Met Val			
	290	295	300
Arg Ala Gly Leu Leu Ala Leu Glu Phe Tyr Thr Pro Glu Ala Phe Asn			
305	310	315	320
Trp Arg Gln Ala His Met Gln Ala Arg Phe Val Ile Leu Arg Val Leu			
	325	330	335
Leu Glu Ala Gly Glu Gly Leu Val Thr Ile Thr Pro Thr Thr Gly Ser			
	340	345	350
Asp Gly Arg Pro Asp Ala Arg Val Arg Leu Asp Arg Ser Lys Ile Arg			
	355	360	365
Ser Val Gly Lys Pro Ala Leu Glu Arg Phe Leu Arg Arg Leu Gln Val			
	370	375	380
Leu Lys Ser Thr Gly Asp Val Ala Gly Gly Arg Ala Leu Tyr Glu Gly			
385	390	395	400
Tyr Ala Thr Val Thr Asp Ala Pro Pro Glu Cys Phe Leu Thr Leu Arg			
	405	410	415
Asp Thr Val Leu Leu Arg Lys Glu Ser Arg Lys Leu Ile Val Gln Pro			
	420	425	430
Asn Thr Arg Leu Glu Gly Asn Gly Ser Asp Val Gln Leu Leu Glu Tyr			

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Glu	Ala	Ser	Ala	Ala	Gly	Leu
	450		455		460	
Glu	Asp	Gly	Pro	Glu	Leu	Glu
465			470		475	
Asp	Ala	Arg	Phe	Trp	Lys	Gly
	485		490		495	

&lt;210&gt; 3597

&lt;211&gt; 1090

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3597

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&lt;210&gt; 3598

<211> 159  
 <212> PRT  
 <213> Homo sapiens

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 Pro Lys Thr Ala Leu Pro Phe Asn Arg Phe Leu Pro Asn Lys Ser Arg  
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 Gln Pro Ser Tyr Val Pro Ala Pro Leu Arg Lys Lys Lys Pro Asp Lys  
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 His Glu Asp Asn Arg Arg Ser Trp Ala Ser Pro Val Tyr Thr Glu Ala  
 85 90 95  
 Asp Gly Thr Phe Ser Arg Ser Lys Ser Met Ser Asp Val Ser Ala Glu  
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 Asp Val Gln Asn Leu Arg Gln Leu Arg Tyr Glu Glu Met Gln Lys Ile  
 115 120 125  
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<210> 3599  
 <211> 691  
 <212> DNA  
 <213> Homo sapiens

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<210> 3600

<211> 98

<212> PRT

<213> Homo sapiens

<400> 3600

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		20						25					30		
Met	Val	Glu	Val	Arg	Ser	Trp	Ser	Gly	Ser	Leu	Val	Gly	Trp	Leu	Ala
	35						40					45			
Pro	Arg	Pro	Leu	Ser	Val	Pro	Ile	Glu	His	Leu	Leu	Gly	Ala	Lys	Asn
	50					55					60				
Cys	Cys	Arg	His	Gly	Gly	Gln	Trp	Val	Arg	Arg	Ala	Val	Pro	Ala	Val
65				70					75					80	
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Leu	Leu														

<210> 3601

<211> 2963

<212> DNA

<213> Homo sapiens

<400> 3601

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720

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 2963

<210> 3602

<211> 299

<212> PRT

<213> Homo sapiens

<400> 3602

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			20					25					30		
Glu	Ala	Arg	Glu	Leu	Met	Tyr	Ser	Gly	Ala	Leu	Leu	Phe	Phe	Ser	His
			35					40					45		
Gly	Gln	Gln	Asn	Ser	Ala	Ala	Asp	Leu	Ser	Met	Leu	Val	Leu	Glu	Ser
			50				55				60				
Leu	Glu	Lys	Ala	Glu	Val	Glu	Val	Ala	Asp	Glu	Leu	Leu	Glu	Asn	Leu
65					70					75				80	
Ala	Lys	Val	Phe	Ser	Leu	Met	Asp	Pro	Asn	Ser	Pro	Glu	Arg	Val	Thr
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Phe	Val	Ser	Arg	Ala	Leu	Lys	Trp	Ser	Ser	Gly	Gly	Ser	Gly	Lys	Leu
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Gly	His	Pro	Arg	Leu	His	Gln	Leu	Leu	Ala	Leu	Thr	Leu	Trp	Lys	Glu
			115				120					125			
Gln	Asn	Tyr	Cys	Glu	Ser	Arg	Tyr	His	Phe	Leu	His	Ser	Ala	Asp	Gly
			130				135					140			
Glu	Gly	Cys	Ala	Asn	Met	Leu	Val	Glu	Tyr	Ser	Thr	Ser	Arg	Gly	Phe
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Arg	Ser	Glu	Val	Asp	Met	Phe	Val	Ala	Gln	Ala	Val	Leu	Gln	Phe	Leu
					165					170				175	
Cys	Leu	Lys	Asn	Lys	Ser	Ser	Ala	Ser	Val	Val	Phe	Thr	Thr	Tyr	Thr
			180					185					190		
Gln	Lys	His	Pro	Ser	Ile	Glu	Asp	Gly	Pro	Pro	Phe	Val	Glu	Pro	Leu

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 Leu Asn Phe Ile Trp Phe Leu Leu Leu Ala Val Asp Gly Gly Lys Leu  
 210                                      215                                      220  
 Thr Val Phe Thr Val Leu Cys Glu Gln Tyr Gln Pro Ser Leu Arg Arg  
 225                                      230                                      235                                      240  
 Asp Pro Met Tyr Asn Glu Tyr Leu Asp Arg Ile Gly Gln Leu Phe Phe  
 245                                      250                                      255  
 Gly Val Pro Pro Lys Gln Thr Ser Ser Tyr Gly Gly Leu Leu Gly Asn  
 260                                      265                                      270  
 Leu Leu Thr Ser Leu Met Gly Ser Ser Glu Gln Glu Asp Gly Glu Glu  
 275                                      280                                      285  
 Ser Pro Ser Asp Gly Ser Pro Ile Glu Leu Asp  
 290                                      295

&lt;210&gt; 3603

&lt;211&gt; 1082

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3603

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1080

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1082

<210> 3604

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3604

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35 40 45  
Ala Gly Val Ser Pro Arg Gly Val Lys Arg Gln Arg Arg Ser Ser Ser  
50 55 60  
Gly Gly Ser Gln Glu Lys Arg Gly Arg Pro Ser Gln Glu Pro Pro Leu  
65 70 75 80  
Ala Pro Pro His Arg Arg Arg Arg Ser Arg Gln His Pro Gly Pro Leu  
85 90 95  
Pro Pro Thr Asn Ala Ala Pro Thr Val Pro Gly Pro Val Glu Pro Leu  
100 105 110  
Leu Leu Pro Pro Pro Pro Pro Pro Ser Leu Ala Pro Ala Gly Pro Ala  
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<210> 3605

<211> 2004

<212> DNA

<213> Homo sapiens

<400> 3605

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480



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1980  
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2004

&lt;210&gt; 3606

&lt;211&gt; 324

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3606

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      20           25           30
Lys Gly Asp Tyr Tyr Glu Ala His Gln Met Tyr Arg Thr Leu Phe Phe
      35           40           45
Arg Tyr Met Ser Gln Ser Lys His Thr Glu Ala Arg Glu Leu Met Tyr
      50           55           60
Ser Gly Ala Leu Leu Phe Phe Ser His Gly Gln Gln Asn Ser Ala Ala
65           70           75           80
Asp Leu Ser Met Leu Val Leu Glu Ser Leu Glu Lys Ala Glu Val Glu
      85           90           95
Val Ala Asp Glu Leu Leu Glu Asn Leu Ala Lys Val Phe Ser Leu Met
      100          105          110
Asp Pro Asn Ser Pro Glu Arg Val Thr Phe Val Ser Arg Ala Leu Lys
      115          120          125
Trp Ser Ser Gly Gly Ser Gly Lys Leu Gly His Pro Arg Leu His Gln
      130          135          140
Leu Leu Ala Leu Thr Leu Trp Lys Glu Gln Asn Tyr Cys Glu Ser Arg
145          150          155          160
Tyr His Phe Leu His Ser Ala Asp Gly Glu Gly Cys Ala Asn Met Leu
      165          170          175
Val Glu Tyr Ser Thr Ser Arg Gly Phe Arg Ser Glu Val Asp Met Phe
      180          185          190
Val Ala Gln Ala Val Leu Gln Phe Leu Cys Leu Lys Asn Lys Ser Ser
      195          200          205
Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro Ser Ile Glu
      210          215          220
Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile Trp Phe Leu
225          230          235          240
Leu Leu Ala Val Asp Gly Gly Lys Leu Thr Val Phe Thr Val Leu Cys
      245          250          255
Glu Gln Tyr Gln Pro Ser Leu Arg Arg Asp Pro Met Tyr Asn Glu Tyr
      260          265          270
Leu Asp Arg Ile Gly Gln Leu Phe Phe Gly Val Pro Pro Lys Gln Thr
      275          280          285
Ser Ser Tyr Gly Gly Leu Leu Gly Asn Leu Leu Thr Ser Leu Met Gly
      290          295          300
Ser Ser Glu Gln Glu Asp Gly Glu Glu Ser Pro Ser Asp Gly Ser Pro
305          310          315          320
Ile Glu Leu Asp

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&lt;210&gt; 3607

&lt;211&gt; 1726

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3607

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120  
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180  
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240  
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300  
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420  
tgccagcaca ggccaccgta ttacggctat gtcaaacgag ctactaacag ggaacctctt  
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720  
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1320  
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1380  
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1620

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<210> 3608

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3608

Xaa Ala Ser Trp Glu Leu Val Asp Pro Thr Pro Asp Leu Gln Ala Leu  
 1 5 10 15  
 Phe Val Gln Phe Asn Asp Gln Phe Phe Trp Gly Gln Leu Glu Ala Val  
 20 25 30  
 Glu Val Lys Trp Ser Val Arg Met Thr Leu Cys Ala Gly Ile Cys Ser  
 35 40 45  
 Tyr Glu Gly Lys Gly Gly Met Cys Ser Ile Arg Leu Ser Glu Pro Leu  
 50 55 60  
 Leu Lys Leu Arg Pro Arg Lys Asp Leu Val Glu Thr Leu Leu His Glu  
 65 70 75 80  
 Met Ile His Ala Tyr Leu Phe Val Thr Asn Asn Asp Lys Asp Arg Glu  
 85 90 95  
 Gly His Gly Pro Glu Phe Cys Lys His Met His Arg Ile Asn Ser Leu  
 100 105 110  
 Thr Gly Ala Asn Ile Thr Val Tyr His Thr Phe His Asp Glu Val Asp  
 115 120 125  
 Glu Tyr Arg Arg His Trp Trp Arg Cys Asn Gly Pro Cys Gln His Arg  
 130 135 140  
 Pro Pro Tyr Tyr Gly Tyr Val Lys Arg Ala Thr Asn Arg Glu Pro Ser  
 145 150 155 160  
 Ala His Asp Tyr Trp Trp Ala Glu His Gln Lys Thr Cys Gly Gly Thr  
 165 170 175  
 Tyr Ile Lys Ile Lys Glu Pro Glu Asn Tyr Ser Lys Lys Gly Lys Gly  
 180 185 190  
 Lys Ala Lys Leu Gly Lys Glu Pro Val Leu Ala Ala Glu Asn Lys Asp  
 195 200 205  
 Lys Pro Asn Arg Gly Glu Ala Gln Leu Val Ile Pro Phe Ser Gly Lys  
 210 215 220  
 Gly Tyr Val Leu Gly Glu Thr Ser Asn Leu Pro Ser Pro Gly Lys Leu  
 225 230 235 240  
 Ile Thr Ser His Ala Ile Asn Lys Thr Gln Asp Leu Leu Asn Gln Asn  
 245 250 255  
 His Ser Ala Asn Ala Val Arg Pro Asn Ser Lys Ile Lys Val Lys Phe  
 260 265 270  
 Glu Gln Asn Gly Ser Ser Lys Asn Ser His Leu Val Ser Pro Ala Val  
 275 280 285  
 Ser Asn Ser His Gln Asn Val Leu Ser Asn Tyr Phe Pro Arg Val Ser  
 290 295 300  
 Phe Ala Asn Gln Lys Ala Phe Arg Gly Val Asn Gly Ser Pro Arg Ile  
 305 310 315 320  
 Ser Val Thr Val Gly Asn Ile Pro Lys Asn Ser Val Ser Ser Ser Ser  
 325 330 335  
 Gln Arg Arg Val Ser Ser Ser Lys Ile Ser Leu Arg Asn Ser Ser Lys

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          340          345          350
Val Thr Glu Ser Ala Ser Val Met Pro Ser Gln Asp Val Ser Gly Ser
          355          360          365
Glu Asp Thr Phe Pro Asn Lys Arg Pro Arg Leu Glu Asp Lys Thr Val
          370          375          380
Phe Asp Asn Phe Phe Ile Lys Lys Glu Gln Ile Lys Ser Ser Gly Asn
385          390          395          400
Asp Pro Lys Tyr Ser Thr Thr Thr Ala Gln Asn Ser Ser Ser Ser Ser
          405          410          415
Ser Gln Ser Lys Met Val Asn Cys Pro Val Cys Gln Asn Glu Val Leu
          420          425          430
Gly Val Ser Asp
          435

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&lt;210&gt; 3609

&lt;211&gt; 1286

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3609

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120
tgcgtcaacc agtgggagca gctgaggggg ccgggtggca acgaggatgg gccacagaag
180
ctggacttgg aagctgatgc tgagcccaaa gacctcgaga gtacgaacct cttggagagt
240
gaagctccca gggactatct cctcaagttt gcctatatgt tggatttggc cagcgacaca
300
gcagacaagt tcctgcagct gntttggaac caaagggtgc aagaggggtgc tgtgtcctat
360
caannctacc ccttgctgcc caccgccttc acccattgtg agcaggtgct gggcgagggg
420
gccctggacc gaggcaccta ctactgggag gtggagatta tcgagggctg ggtcagcatg
480
ggggtcatgg ccgcagactt ctccccacaa gagccctacg accgcggccg gctgggccgc
540
aacgcccact cctgctgcct gcagtggaat ggacgcagct tctccgtctg gtttcatggg
600
ctggaggctc cctgcecca ccccttctcg cccacgggtg gggctctgct ggaatacgct
660
gaccgtgctt tggectteta tgetgtacgg gacggcaaga tgagcctcct gcggaggctg
720
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780
cgccctggaca gtcactttgc ggggctcttc acccacagac tcaagcctgc cttcttctg
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900
aagaggaggt gatgcggggc acggggcgctc ctgctgccgt ctctgctcca ggaagctgcc
960
tcctctgggc cctctccttc gtctgggaag gcaccagcat ggtcccaca caccagcct
1020

```

tctcatttct agaggettcc acctttttat acactcagcc ttccctctcc caggcaggag  
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 1140  
 cagctccaag ctaccctaac ccttccttcc ccaggtttct agaatagtgt ctggcatgta  
 1200  
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 1286

<210> 3610

<211> 268

<212> PRT

<213> Homo sapiens

<400> 3610

Met	Leu	Ala	Val	Ala	Cys	Val	Asn	Gln	Trp	Glu	Gln	Leu	Arg	Gly	Pro
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Gly	Gly	Asn	Glu	Asp	Gly	Pro	Gln	Lys	Leu	Asp	Leu	Glu	Ala	Asp	Ala
		20						25					30		
Glu	Pro	Gln	Asp	Leu	Glu	Ser	Thr	Asn	Leu	Leu	Glu	Ser	Glu	Ala	Pro
		35					40					45			
Arg	Asp	Tyr	Phe	Leu	Lys	Phe	Ala	Tyr	Ile	Val	Asp	Leu	Asp	Ser	Asp
	50					55					60				
Thr	Ala	Asp	Lys	Phe	Leu	Gln	Leu	Xaa	Trp	Asn	Gln	Arg	Cys	Gln	Glu
65					70					75				80	
Gly	Ala	Val	Ser	Tyr	Gln	Xaa	Tyr	Pro	Leu	Ser	Pro	Thr	Arg	Phe	Thr
				85					90					95	
His	Cys	Glu	Gln	Val	Leu	Gly	Glu	Gly	Ala	Leu	Asp	Arg	Gly	Thr	Tyr
			100					105					110		
Tyr	Trp	Glu	Val	Glu	Ile	Ile	Glu	Gly	Trp	Val	Ser	Met	Gly	Val	Met
	115						120					125			
Ala	Ala	Asp	Phe	Ser	Pro	Gln	Glu	Pro	Tyr	Asp	Arg	Gly	Arg	Leu	Gly
	130					135					140				
Arg	Asn	Ala	His	Ser	Cys	Cys	Leu	Gln	Trp	Asn	Gly	Arg	Ser	Phe	Ser
145					150					155				160	
Val	Trp	Phe	His	Gly	Leu	Glu	Ala	Pro	Leu	Pro	His	Pro	Phe	Ser	Pro
				165					170					175	
Thr	Val	Gly	Val	Cys	Leu	Glu	Tyr	Ala	Asp	Arg	Ala	Leu	Ala	Phe	Tyr
		180						185					190		
Ala	Val	Arg	Asp	Gly	Lys	Met	Ser	Leu	Leu	Arg	Arg	Leu	Lys	Ala	Ser
	195						200					205			
Arg	Pro	Arg	Arg	Gly	Gly	Ile	Pro	Ala	Ser	Pro	Ile	Asp	Pro	Phe	Gln
	210				215						220				
Ser	Arg	Leu	Asp	Ser	His	Phe	Ala	Gly	Leu	Phe	Thr	His	Arg	Leu	Lys
225					230					235				240	
Pro	Ala	Phe	Phe	Leu	Glu	Ser	Val	Asp	Ala	His	Leu	Gln	Ile	Gly	Pro
				245					250					255	
Leu	Lys	Lys	Ser	Cys	Ile	Ser	Val	Leu	Lys	Arg	Arg				
			260						265						

<210> 3611

<211> 816

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3611

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 agctacaaag ggatcttcca gtatgactac catgataaag tgaagccaag aaagatattc  
 120  
 caatggagac agttggaaaa cctgtacttc agagaaaaga agttttccgt ggaagttcat  
 180  
 gacccacgca gggcttcagt gacaaggagg acgtttgggc acagcggcat tgcagtgcac  
 240  
 acgtggtatg catgtccggc attgatcaag tccatctggg ctatggccat aagccaacac  
 300  
 cagttctatc tggacagaaa gcagagtaag tccaaaatcc atgcagcacg cagcctgagt  
 360  
 gagatcgcca tcgacctgac cgagacgggg acgctgaaga cctcgaagct ggccaacatg  
 420  
 ggtagcaagg ggaagatcat cagcggcagc agcggcagcc tgcgtctctc aggttctcag  
 480  
 gaatcagata gctcgcagtc ggccaagaag gacatgctgg ctgccttgaa gtccaggcag  
 540  
 gaagctctgg aggaaacct gcgtcagagg ctggaggaac tgaagaagct gtgtctccga  
 600  
 gaagctgagc tcacggggcaa gctgccagta gaatatcccc tggatccagg ggaggaacca  
 660  
 cccattgttc ggagaagaat aggaacagcc ttcaactgg atgaacagaa aatcctgccc  
 720  
 aaaggagagg aagctgaact ggaacgcctg gaacgagagt ttgccattca gtcccagatt  
 780  
 acggaggccg cccgccgcct agccagtgc cccaac  
 816

&lt;210&gt; 3612

&lt;211&gt; 272

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3612

Tyr	Gly	Val	His	Tyr	Tyr	Ala	Val	Lys	Asp	Lys	Gln	Gly	Ile	Pro	Trp
1				5					10					15	
Trp	Leu	Gly	Leu	Ser	Tyr	Lys	Gly	Ile	Phe	Gln	Tyr	Asp	Tyr	His	Asp
			20					25					30		
Lys	Val	Lys	Pro	Arg	Lys	Ile	Phe	Gln	Trp	Arg	Gln	Leu	Glu	Asn	Leu
			35				40					45			
Tyr	Phe	Arg	Glu	Lys	Lys	Phe	Ser	Val	Glu	Val	His	Asp	Pro	Arg	Arg
			50			55					60				
Ala	Ser	Val	Thr	Arg	Arg	Thr	Phe	Gly	His	Ser	Gly	Ile	Ala	Val	His
			65			70			75					80	
Thr	Trp	Tyr	Ala	Cys	Pro	Ala	Leu	Ile	Lys	Ser	Ile	Trp	Ala	Met	Ala
				85				90					95		
Ile	Ser	Gln	His	Gln	Phe	Tyr	Leu	Asp	Arg	Lys	Gln	Ser	Lys	Ser	Lys
			100					105					110		
Ile	His	Ala	Ala	Arg	Ser	Leu	Ser	Glu	Ile	Ala	Ile	Asp	Leu	Thr	Glu

115	120	125
Thr Gly Thr Leu Lys Thr Ser Lys Leu Ala Asn Met Gly Ser Lys Gly		
130	135	140
Lys Ile Ile Ser Gly Ser Ser Gly Ser Leu Leu Ser Ser Gly Ser Gln		
145	150	155
Glu Ser Asp Ser Ser Gln Ser Ala Lys Lys Asp Met Leu Ala Ala Leu		
165	170	175
Lys Ser Arg Gln Glu Ala Leu Glu Glu Thr Leu Arg Gln Arg Leu Glu		
180	185	190
Glu Leu Lys Lys Leu Cys Leu Arg Glu Ala Glu Leu Thr Gly Lys Leu		
195	200	205
Pro Val Glu Tyr Pro Leu Asp Pro Gly Glu Glu Pro Pro Ile Val Arg		
210	215	220
Arg Arg Ile Gly Thr Ala Phe Lys Leu Asp Glu Gln Lys Ile Leu Pro		
225	230	235
Lys Gly Glu Glu Ala Glu Leu Glu Arg Leu Glu Arg Glu Phe Ala Ile		
245	250	255
Gln Ser Gln Ile Thr Glu Ala Ala Arg Arg Leu Ala Ser Asp Pro Asn		
260	265	270

&lt;210&gt; 3613

&lt;211&gt; 659

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3613

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acgcgtaaag ttgcctttca agctctggcc tccgggcacg cgatgctccg cggcgggctg
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actcaggggt gccttggggc tccctgccac cctcctggaa atgatgcaag tcttgactgt
120
cacctggatc cctgcagccc agcctggaat gcgtctggat taggggaaag acgagaaacg
180
acactccagg tggtgcacgg ccacacaaag cgggaagata gggcagttgc tcagaccaa
240
tactgtatct agtgcttctg ctctatctt caatcgtggg gttcttttta atgcaaagtg
300
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360
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420
aagaggaaac tttcccaacc cgatgtgggt gtgacgcgag ccaggggccc cagggaact
480
gtcccagagc acaccgtccc cctttaacag caactggagc ttggattcgc tcttatattg
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600
ctcacacaca ctacatacaca cgcacgcaaa cgcggtcgga gaagagcccc cccccccc
659

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&lt;210&gt; 3614

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 3614

```

Met Gln Ser Val Thr Arg Pro Gly Ile Pro Met Cys Ala Gln Leu Ala
 1             5             10             15
His Ser Ile Ile Val Pro Arg Lys Leu Leu Gln Phe Ile Lys Ser Ser
      20             25             30
Gly Leu Gly Ile Ser Leu Asn Ser Lys Arg Arg Lys Glu Glu Thr Phe
      35             40             45
Pro Thr Arg Cys Gly Cys Asp Ala Ser Gln Gly Pro Gln Gly His Cys
      50             55             60
Pro Arg Ala His Arg Pro Pro Leu Thr Ala Thr Gly Ala Trp Ile Arg
      65             70             75             80
Ser Tyr Ile Val Gln Ser Phe Arg Pro Leu Pro Trp Ser Thr Arg Thr
      85             90             95
Arg Ala Arg Ile Ser Gly Arg Ala His Thr His Ser Tyr Thr Arg Thr
      100            105            110
Gln Thr Arg Ser Glu Lys Ser Pro Pro Pro
      115            120

```

&lt;210&gt; 3615

&lt;211&gt; 1388

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3615

```

nnnggcagagc ctcccgaaga aaagggagcc gcgcagcgcc tacgggagtc cggcggcagc
60
agccggtacc ggcaaccacg ggcagctctc agggaatctc cgtcgtgagg ccagaggctc
120
cagtcctccgc gagtccagat gcctgtccag cctccaagca aagacacaga agagatggaa
180
gcagaggggtg attctgctgc tgagatgaat ggggaggagg aagagagtga ggaggagcgg
240
agcggcagcc agacagagtc agaagaggag agctccgaga tggatgatga ggactatgag
300
cgacgcccga gcgagtgtgt cagtgtgagtg ctggacctag agaagcagtt ctggagcta
360
aaggagaagt tgttcaggga acgactgagt cagctgcggt tgcggctgga ggaagtgggg
420
gctgagagag cccctgaata cacggagccc cttggggggc tgcagcggag cctcaagatt
480
cgcattcagg tggcagggat ctacaagggc ttctgtctgg atgtgatcag gaataagtac
540
gaatgtgagc tgcagggagc caaacagcac ctggagagtg agaagctgct gctctatgac
600
acgctgcagg gggagctgca ggagcggatc cagaggctgg aggaggaccg ccagagcctg
660
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720
gactccctgc cgcccagcaa gaggaagaag gcacctctgg tttctggccc atacatcgtg
780
tacatgcttc aagagatcgg catcctggag gactggacag ccatcaaaaa ggctagggca
840
gctgtgtccc ctcagaagag aaaatcggat gacaggcggg cccacaggcc cctcagggtc
900

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tgcccagcca ggctcctgtg gtgctgctgg gccctccac tccatctggc actggcctgg  
 960  
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 1020  
 gcaaggctgc tgtctccatc cctgagccgc ctgccacctc ccactcctga agatccatct  
 1080  
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 1140  
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 1200  
 agtcagacgt gattatctgg gggctctgcc accctggctg gatctggagg caagatgcca  
 1260  
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 1320  
 aattaaaacc tttcctggga ctctggaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1380  
 aaaaaaaaa  
 1388

&lt;210&gt; 3616

&lt;211&gt; 290

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3616

Met	Pro	Val	Gln	Pro	Pro	Ser	Lys	Asp	Thr	Glu	Glu	Met	Glu	Ala	Glu
1				5					10					15	
Gly	Asp	Ser	Ala	Ala	Glu	Met	Asn	Gly	Glu	Glu	Glu	Glu	Ser	Glu	Glu
			20					25					30		
Glu	Arg	Ser	Gly	Ser	Gln	Thr	Glu	Ser	Glu	Glu	Glu	Ser	Ser	Glu	Met
			35				40					45			
Asp	Asp	Glu	Asp	Tyr	Glu	Arg	Arg	Arg	Ser	Glu	Cys	Val	Ser	Glu	Met
			50			55					60				
Leu	Asp	Leu	Glu	Lys	Gln	Phe	Ser	Glu	Leu	Lys	Glu	Lys	Leu	Phe	Arg
65					70					75					80
Glu	Arg	Leu	Ser	Gln	Leu	Arg	Leu	Arg	Leu	Glu	Glu	Val	Gly	Ala	Glu
				85						90				95	
Arg	Ala	Pro	Glu	Tyr	Thr	Glu	Pro	Leu	Gly	Gly	Leu	Gln	Arg	Ser	Leu
			100					105					110		
Lys	Ile	Arg	Ile	Gln	Val	Ala	Gly	Ile	Tyr	Lys	Gly	Phe	Cys	Leu	Asp
			115				120					125			
Val	Ile	Arg	Asn	Lys	Tyr	Glu	Cys	Glu	Leu	Gln	Gly	Ala	Lys	Gln	His
			130			135					140				
Leu	Glu	Ser	Glu	Lys	Leu	Leu	Tyr	Asp	Thr	Leu	Gln	Gly	Glu	Leu	
145					150				155					160	
Gln	Glu	Arg	Ile	Gln	Arg	Leu	Glu	Glu	Asp	Arg	Gln	Ser	Leu	Asp	Leu
			165						170					175	
Ser	Ser	Glu	Trp	Trp	Asp	Asp	Lys	Leu	His	Ala	Arg	Gly	Ser	Ser	Arg
			180					185					190		
Ser	Trp	Asp	Ser	Leu	Pro	Pro	Ser	Lys	Arg	Lys	Lys	Ala	Pro	Leu	Val
			195				200					205			
Ser	Gly	Pro	Tyr	Ile	Val	Tyr	Met	Leu	Gln	Glu	Ile	Gly	Ile	Leu	Glu
			210			215					220				
Asp	Trp	Thr	Ala	Ile	Lys	Lys	Ala	Arg	Ala	Ala	Val	Ser	Pro	Gln	Lys

```

225          230          235          240
Arg Lys Ser Asp Asp Arg Arg Thr His Arg Pro Leu Arg Val Cys Pro
          245          250          255
Ala Arg Leu Leu Trp Cys Cys Trp Ala Leu Pro Leu His Leu Ala Leu
          260          265          270
Ala Trp Thr Pro Pro Leu Pro Ser Ser Arg Pro Ala Gln Leu Trp Pro
          275          280          285
Trp Ser
          290

```

&lt;210&gt; 3617

&lt;211&gt; 804

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3617

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120
aggatgggat ggtagtagtg aaggacatag gatgggggta gagtgtggag actttttgaa
180
atagtataga tgaatgcctt gaggggactg tgaacaagct ctgccctct taggaaatca
240
atggggaatc aactaaatta aataaaaaat ggggtcaaga ttaagaggca gggtcacca
300
gggaatggtt taggtcctgg catctttgaa ggggttgaa gggctggcag gaggcactga
360
gggccctggg ccctgggcca ggtggtgaat tacagcgact cacggacagc agaagagatc
420
tgtgagagca gctccaagat gatcacctc atcgacctg caggccacca taagtaccta
480
cacaccacca tctttggcct cacatcatac tgccccgact gcgccctgct cctcgctcgt
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600
gtgcccttct tcatcggtg cagcaagatc gacctatgtg ccaagaccac agtggagagg
660
acagtacgcc agctggagcg ggtcctcaag cagcctggct gccacaaggt ccccatgctg
720
gtcacctctg aggatgatgc cgctcactgt gccagcagt ttgctcagtc acccaatgtc
780
acccccatct tcacattgtc cagt
804

```

&lt;210&gt; 3618

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3618

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	50					55					60				
Ile	Ala	Gly	Thr	Thr	Arg	Glu	His	Leu	Gly	Leu	Ala	Leu	Ala	Leu	Lys
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Val	Pro	Phe	Phe	Ile	Val	Val	Ser	Lys	Ile	Asp	Leu	Cys	Ala	Lys	Thr
				85					90					95	
Thr	Val	Glu	Arg	Thr	Val	Arg	Gln	Leu	Glu	Arg	Val	Leu	Lys	Gln	Pro
		100					105						110		
Gly	Cys	His	Lys	Val	Pro	Met	Leu	Val	Thr	Ser	Glu	Asp	Asp	Ala	Val
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Thr	Ala	Ala	Gln	Gln	Phe	Ala	Gln	Ser	Pro	Asn	Val	Thr	Pro	Ile	Phe
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Thr	Leu	Ser	Ser												
145															

&lt;210&gt; 3619

&lt;211&gt; 948

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3619

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948

<210> 3620

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3620

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		20						25					30		
Ser	Ser	Ser	Ser	Met	Ala	Thr	Pro	Leu	Ser	Cys	Cys	Pro	Thr	Trp	Ala
		35					40					45			
Pro	Gly	Ala	Ser	Ser	Gln	Pro	Cys	Ser	Thr	Tyr	Pro	Pro	Trp	Arg	Thr
	50				55						60				
Thr	Thr	Leu	Ser	Thr	Ser	Thr	Ser	Trp	Ser	Cys	Leu	Leu	Leu	Pro	Cys
65					70					75				80	
Ala	Ser	Cys	Pro	Ser	Arg	Cys	Ser	Cys	Gln	Thr	Trp	Pro	Ser	Ser	Pro
				85					90					95	
Thr	Ala	Ser	Thr	Pro	Thr	Thr	Ser	Cys	Thr	Ser	Phe	Met	Thr	Thr	Cys
		100						105					110		
Cys	His	Ser	Ser	Thr	Pro	Cys	Gly	Ser	Phe	Pro	Ala	Trp	Pro	Thr	Arg
	115						120				125				
His	Gly	Ser	Ser	Ser	Trp	Arg	Ala	Gly	Ala	Arg	Val	His	Thr	Ser	Thr
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<210> 3621

<211> 2934

<212> DNA

<213> Homo sapiens

<400> 3621

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180  
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240  
acctcaagaa aataacatct gttttttgta acgttccaca gtattcggaa ttggctacag  
300  
aacataataa gatccttgcc agcacattac agaataatatt tgttgaacct tcttgagaat  
360  
tcagagaaac tgctgagtga ccaactgaacg aaaagatcta atcttaaggc ttacgcgtgt  
420  
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480  
gtgcccttgc tgcaagcctg tattgatggg gactttaatt attccaagcg gcttttggaa  
540

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660  
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720  
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2160

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&lt;210&gt; 3622

&lt;211&gt; 228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3622

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			20					25					30		
Glu	Ser	Gly	Phe	Asp	Pro	Asn	Ile	Arg	Asp	Ser	Arg	Gly	Arg	Thr	Gly
		35					40					45			
Leu	His	Leu	Ala	Ala	Ala	Arg	Gly	Asn	Val	Asp	Ile	Cys	Gln	Leu	Leu
	50					55				60					
His	Lys	Phe	Gly	Ala	Asp	Leu	Leu	Ala	Thr	Asp	Tyr	Gln	Gly	Asn	Thr
65					70				75					80	
Ala	Leu	His	Leu	Cys	Gly	His	Val	Asp	Thr	Ile	Gln	Phe	Leu	Val	Ser
			85					90					95		
Asn	Gly	Leu	Lys	Ile	Asp	Ile	Cys	Asn	His	Gln	Gly	Ala	Thr	Pro	Leu
		100					105					110			
Val	Leu	Ala	Lys	Arg	Arg	Gly	Val	Asn	Lys	Asp	Val	Ile	Arg	Leu	Leu
	115					120					125				
Glu	Ser	Leu	Glu	Glu	Gln	Glu	Val	Lys	Gly	Phe	Asn	Arg	Gly	Thr	His
	130				135					140					
Ser	Lys	Leu	Glu	Thr	Met	Gln	Thr	Ala	Glu	Ser	Glu	Ser	Ala	Met	Glu
145					150				155				160		
Ser	His	Ser	Leu	Leu	Asn	Pro	Asn	Leu	Gln	Gln	Gly	Glu	Gly	Val	Leu

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Ser Ser Phe Arg Thr Thr Trp Gln Glu Phe Val Glu Asp Leu Gly Phe
                180                185                190
Trp Arg Val Leu Leu Leu Ile Phe Val Ile Ala Leu Leu Ser Leu Gly
                195                200                205
Ile Ala Tyr Tyr Val Ser Gly Val Leu Pro Phe Val Glu Asn Gln Pro
                210                215                220
Glu Leu Val His
225

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&lt;210&gt; 3623

&lt;211&gt; 586

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3623

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180
gcggaatttc tccctcacac gattaaattc cattatgtcc atgggggtcct cttcgatcca
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480
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586

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&lt;210&gt; 3624

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3624

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Met Gly Leu Leu Gly Leu Tyr Asn Leu Gln Tyr Phe Ala Glu Arg Asp
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Ala Thr Ala Ala Gln Gln Val Leu Ser Asp Ser Leu His Pro Lys Cys
 20          25          30
Arg Asp Ile Thr Lys Glu Glu Ile Ser Lys Phe Ser Lys Ala Glu Trp
 35          40          45
Glu Lys Lys Arg Met Asp Lys Ala Ile Gly Tyr Ser Phe Ala Ile Val
 50          55          60
Gly Ile Asn Ile Thr Asp Leu Ala Tyr Asn Leu Leu Val Ser Gly Ala
 65          70          75          80
Leu Lys Thr His Phe Tyr Asn Ile Ala Pro Glu Ala Pro Thr Leu Ser

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				85					90					95		
His	Phe	Gln	Gln	Thr	Phe	Cys	Tyr	Leu	Met	His	Glu	Phe	His	Lys	Phe	
			100					105					110			
Trp	Ile	Glu	Glu	Asp	Pro	Met	Asp	Ile	Met	Glu	Phe	Asn	Arg	Val	Arg	
		115					120					125				
Glu	Lys	Phe	Arg	Lys	Arg	Ile	Ile	Lys	Gln	Leu	Gln	Asn	Pro	Asp	Met	
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Ala	Leu	Cys	Pro	His	Phe	Ala	Ala	Ser	Glu	Gly	Leu	Ile	Asn	Met		
145					150					155						

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<210> 3625
<211> 4799
<212> DNA
<213> Homo sapiens
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1140

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4380

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 4560  
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 4620  
 aagggggagg ggtgctgggg accccaccca ttccccctcc ctccaaactc ccaaccccca  
 4680  
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 4799

<210> 3626

<211> 551

<212> PRT

<213> Homo sapiens

<400> 3626

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Tyr	Ser	Glu	Ala	Glu	Ile	Lys	Val	Arg	Glu	Ala	Thr	Ser	Asn	Asp	Pro
			20					25					30		
Trp	Gly	Pro	Ser	Ser	Ser	Leu	Met	Ser	Glu	Ile	Ala	Asp	Leu	Thr	Tyr
			35				40					45			
Asn	Val	Val	Ala	Phe	Ser	Glu	Ile	Met	Ser	Met	Ile	Trp	Lys	Arg	Leu
	50					55					60				
Asn	Asp	His	Gly	Lys	Asn	Trp	Arg	His	Val	Tyr	Lys	Ala	Met	Thr	Leu
	65				70					75				80	
Met	Glu	Tyr	Leu	Ile	Lys	Thr	Gly	Ser	Glu	Arg	Val	Ser	Gln	Gln	Cys
				85					90				95		
Lys	Glu	Asn	Met	Tyr	Ala	Val	Gln	Thr	Leu	Lys	Asp	Phe	Gln	Tyr	Val
			100					105					110		
Asp	Arg	Asp	Gly	Lys	Asp	Gln	Gly	Val	Asn	Val	Arg	Glu	Lys	Ala	Lys
			115				120					125			
Gln	Leu	Val	Ala	Leu	Leu	Arg	Asp	Glu	Asp	Arg	Leu	Arg	Glu	Glu	Arg
						135					140				
Ala	His	Ala	Leu	Lys	Thr	Lys	Glu	Lys	Leu	Ala	Gln	Thr	Ala	Thr	Ala
						150				155				160	
Ser	Ser	Ala	Ala	Val	Gly	Ser	Gly	Pro	Pro	Pro	Glu	Ala	Glu	Gln	Ala
						165			170					175	
Trp	Pro	Gln	Ser	Ser	Gly	Glu	Glu	Glu	Leu	Gln	Leu	Gln	Leu	Ala	Leu
						180			185				190		
Ala	Met	Ser	Lys	Glu	Glu	Ala	Asp	Gln	Glu	Glu	Arg	Ile	Arg	Arg	Gly
						195		200			205				
Asp	Asp	Leu	Arg	Leu	Gln	Met	Ala	Ile	Glu	Glu	Ser	Lys	Arg	Glu	Thr
						210		215			220				
Gly	Gly	Lys	Glu	Glu	Ser	Ser	Leu	Met	Asp	Leu	Ala	Asp	Val	Phe	Thr
						225				230		235		240	
Ala	Pro	Ala	Pro	Ala	Pro	Thr	Thr	Asp	Pro	Trp	Gly	Gly	Pro	Ala	Pro
						245			250				255		
Met	Ala	Ala	Ala	Val	Pro	Thr	Ala	Ala	Pro	Thr	Ser	Asp	Pro	Trp	Gly

260 265 270  
 Gly Pro Pro Val Pro Pro Ala Ala Asp Pro Trp Gly Gly Pro Ala Pro  
 275 280 285  
 Thr Pro Ala Ser Gly Asp Pro Trp Arg Pro Ala Ala Pro Ala Gly Pro  
 290 295 300  
 Ser Val Asp Pro Trp Gly Gly Thr Pro Ala Pro Ala Ala Gly Glu Gly  
 305 310 315 320  
 Pro Thr Pro Asp Pro Trp Gly Ser Ser Asp Gly Gly Val Pro Val Ser  
 325 330 335  
 Gly Pro Ser Ala Ser Asp Pro Trp Thr Pro Ala Pro Ala Phe Ser Asp  
 340 345 350  
 Pro Trp Gly Gly Ser Pro Ala Lys Pro Ser Thr Asn Gly Thr Thr Thr  
 355 360 365  
 Ala Gly Gly Phe Asp Thr Glu Pro Asp Glu Phe Ser Asp Phe Asp Arg  
 370 375 380  
 Leu Arg Thr Ala Leu Pro Thr Ser Gly Ser Ser Ala Gly Glu Leu Glu  
 385 390 395 400  
 Leu Leu Ala Gly Glu Val Pro Ala Arg Ser Pro Gly Ala Phe Asp Met  
 405 410 415  
 Ser Gly Val Arg Gly Ser Leu Ala Glu Ala Val Gly Ser Pro Pro Pro  
 420 425 430  
 Ala Ala Thr Pro Thr Pro Thr Pro Thr Arg Lys Thr Pro Glu Ser  
 435 440 445  
 Phe Leu Gly Pro Asn Ala Ala Leu Val Asp Leu Asp Ser Leu Val Ser  
 450 455 460  
 Arg Pro Gly Pro Thr Pro Pro Gly Ala Lys Ala Ser Asn Pro Phe Leu  
 465 470 475 480  
 Pro Gly Gly Gly Pro Ala Thr Gly Pro Ser Val Thr Asn Pro Phe Gln  
 485 490 495  
 Pro Ala Pro Pro Ala Thr Leu Thr Leu Asn Gln Leu Arg Leu Ser Pro  
 500 505 510  
 Val Pro Pro Val Pro Gly Ala Pro Pro Thr Tyr Ile Ser Pro Leu Gly  
 515 520 525  
 Gly Gly Pro Gly Leu Pro Pro Met Met Pro Pro Gly Pro Pro Ala Pro  
 530 535 540  
 Asn Thr Asn Pro Phe Leu Leu  
 545 550

&lt;210&gt; 3627

&lt;211&gt; 1760

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3627

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 180  
 gatattgaag aatttcatgg caggactttg cacgatgacg acagctgtca ggtgattcca  
 240  
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 300

cacctcaag aagtcagtat ggtgcggaat ttaattcaga aagatagaac ctttgctggt  
360  
cttgcataca gcaatgtaca ggaaagggaa gcacagtttg gaacaacagc agagatatat  
420  
gcctatcgag aagaacagga ttttgaatt gagatagtga aagtgaagc aattggaaga  
480  
caaaggttca aagtccttga gctaagaaca cagtcagatg gaatccagca agctaaagtg  
540  
caaattcttc ccgaatgtgt gttgccttca accatgtctg cagttcaatt agaatccctc  
600  
aataagtgcc agatatttcc ttcaaacct gtctcaagag aagaccaatg ttcataaaa  
660  
tggtggcaga aataccagaa gagaaagttt cattgtgcaa atctaacttc atggcctcgc  
720  
tggtgtgatt ccttatatga tgctgagacc ttaatggaca gaatcaagaa acagctacgt  
780  
gaatgggatg aaaatctaaa agatgattct cttccttcaa atccaataga ttttcttac  
840  
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900  
agtgtatcc agcgacttcg ctgtgaatta gacattatga ataaatgtac ttcccttgc  
960  
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1440  
aacataacat tacttggagg gttgcagttt ctaagtgaac ctgtatttga aacttttaag  
1500  
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1560  
gcttgggtcc attatcctgt ggaatctgat atgtctggta gcatgtcatt gatgggacat  
1620  
gaagacatct ttggaaatga tgagattatt tcctgtatgc agtcatttct gaggctttct  
1680  
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1740  
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1760

&lt;210&gt; 3628

&lt;211&gt; 440

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3628

Gly Glu Gly Asp Gln Gln Asp Ala Ala His Asn Met Gly Asn His Leu  
 1 5 10 15  
 Pro Leu Leu Pro Ala Glu Ser Glu Glu Glu Asp Glu Met Glu Val Glu  
 20 25 30  
 Asp Gln Asp Ser Lys Glu Ala Lys Lys Pro Asn Ile Ile Asn Phe Asp  
 35 40 45  
 Thr Ser Leu Pro Thr Ser His Thr Tyr Leu Gly Ala Asp Met Glu Glu  
 50 55 60  
 Phe His Gly Arg Thr Leu His Asp Asp Asp Ser Cys Gln Val Ile Pro  
 65 70 75 80  
 Val Leu Pro Gln Val Met Met Ile Leu Ile Pro Gly Gln Thr Leu Pro  
 85 90 95  
 Leu Gln Leu Phe His Pro Gln Glu Val Ser Met Val Arg Asn Leu Ile  
 100 105 110  
 Gln Lys Asp Arg Thr Phe Ala Val Leu Ala Tyr Ser Asn Val Gln Glu  
 115 120 125  
 Arg Glu Ala Gln Phe Gly Thr Thr Ala Glu Ile Tyr Ala Tyr Arg Glu  
 130 135 140  
 Glu Gln Asp Phe Gly Ile Glu Ile Val Lys Val Lys Ala Ile Gly Arg  
 145 150 155 160  
 Gln Arg Phe Lys Val Leu Glu Leu Arg Thr Gln Ser Asp Gly Ile Gln  
 165 170 175  
 Gln Ala Lys Val Gln Ile Leu Pro Glu Cys Val Leu Pro Ser Thr Met  
 180 185 190  
 Ser Ala Val Gln Leu Glu Ser Leu Asn Lys Cys Gln Ile Phe Pro Ser  
 195 200 205  
 Lys Pro Val Ser Arg Glu Asp Gln Cys Ser Tyr Lys Trp Trp Gln Lys  
 210 215 220  
 Tyr Gln Lys Arg Lys Phe His Cys Ala Asn Leu Thr Ser Trp Pro Arg  
 225 230 235 240  
 Trp Leu Tyr Ser Leu Tyr Asp Ala Glu Thr Leu Met Asp Arg Ile Lys  
 245 250 255  
 Lys Gln Leu Arg Glu Trp Asp Glu Asn Leu Lys Asp Asp Ser Leu Pro  
 260 265 270  
 Ser Asn Pro Ile Asp Phe Ser Tyr Arg Val Ala Ala Cys Leu Pro Ile  
 275 280 285  
 Asp Asp Val Leu Arg Ile Gln Leu Leu Lys Ile Gly Ser Ala Ile Gln  
 290 295 300  
 Arg Leu Arg Cys Glu Leu Asp Ile Met Asn Lys Cys Thr Ser Leu Cys  
 305 310 315 320  
 Cys Lys Gln Cys Gln Glu Thr Glu Ile Thr Thr Lys Asn Glu Ile Phe  
 325 330 335  
 Ser Leu Ser Leu Cys Gly Pro Met Ala Ala Tyr Val Asn Pro His Gly  
 340 345 350  
 Tyr Val His Glu Thr Leu Thr Val Tyr Lys Ala Cys Asn Leu Asn Leu  
 355 360 365  
 Ile Gly Arg Pro Ser Thr Glu His Ser Trp Phe Pro Gly Tyr Ala Trp  
 370 375 380  
 Thr Val Ala Gln Cys Lys Ile Cys Ala Ser His Ile Gly Trp Lys Phe  
 385 390 395 400  
 Thr Ala Thr Lys Lys Asp Met Ser Pro Gln Lys Phe Trp Gly Leu Thr

405 410 415  
 Arg Ser Ala Leu Leu Pro Thr Ile Pro Asp Thr Glu Asp Glu Ile Ser  
 420 425 430  
 Pro Asp Lys Val Ile Leu Cys Leu  
 435 440

<210> 3629  
 <211> 695  
 <212> DNA  
 <213> Homo sapiens

<400> 3629  
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 acggcgatg ccatgctgcc cttgggcatg cgggacgcgc ccgtcgcggg cctcgccctc  
 180  
 tcactctcgc atctgctggt cctcgggctg tatcttgggc cacagccgga ctcacggcct  
 240  
 gcactgctgc cgcagttggc agcaaacgca gtgctgttcc tgtgcgggaa cgtggcagga  
 300  
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 360  
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 420  
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 540  
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 600  
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 660  
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<210> 3630  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 3630  
 Thr Arg Pro Leu Ser Gly Leu Val Trp Val Ala Leu Leu Ala Leu Gly  
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 20 25 30  
 Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu  
 35 40 45  
 Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His  
 50 55 60  
 Leu Leu Val Leu Gly Leu Tyr Leu Gly Pro Gln Pro Asp Ser Arg Pro  
 65 70 75 80  
 Ala Leu Leu Pro Gln Leu Ala Ala Asn Ala Val Leu Phe Leu Cys Gly



	85		90		95
Asn Val Ala Gly Val Tyr His Lys Ala Leu Met Glu Arg Ala Leu Arg					
	100		105		110
Ala Thr Phe Arg Glu Ala Leu Ser Ser Leu His Ser Arg Arg Arg Leu					
	115		120		125
Asp Thr Glu Lys Lys His Gln Val Ser Arg Ala					
	130		135		

<210> 3631  
 <211> 864  
 <212> DNA  
 <213> Homo sapiens

<400> 3631  
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 120  
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 180  
 ggggattggg cctggtacat gcagtatctg gagaagcgca agaactctgt gtgccacttt  
 240  
 gtgacacccc tggacggctc tgtggacgta gacgagcacc gccggccgga ggccatcacc  
 300  
 acggaaggga agtactggaa gagccgcac gagattgtga tccgggagta tcacaagtgg  
 360  
 agaacctact tcaagaaaag gctacagcag cacaaggatg aggacctctc cagcctgggtc  
 420  
 caggacgatg acatgctgta ttggcacaag cacggggatg gatggaagac ccccggtcccc  
 480  
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 540  
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 600  
 ctgggaaatg cagacatgat ccagccggga ctgattcctt tgcagcctaa cctggacttc  
 660  
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 720  
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 780  
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 cccaccgccc catccctggc gcgc  
 864

<210> 3632  
 <211> 222  
 <212> PRT  
 <213> Homo sapiens

<400> 3632  
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 Pro Leu Asp Gly Ser Val Asp Val Asp Glu His Arg Arg Pro Glu Ala

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 Ile Thr Thr Glu Gly Lys Tyr Trp Lys Ser Arg Ile Glu Ile Val Ile  
 35 40 45  
 Arg Glu Tyr His Lys Trp Arg Thr Tyr Phe Lys Lys Arg Leu Gln Gln  
 50 55 60  
 His Lys Asp Glu Asp Leu Ser Ser Leu Val Gln Asp Asp Asp Met Leu  
 65 70 75 80  
 Tyr Trp His Lys His Gly Asp Gly Trp Lys Thr Pro Val Pro Met Glu  
 85 90 95  
 Glu Asp Pro Leu Leu Asp Thr Asp Met Leu Met Ser Glu Phe Ser Asp  
 100 105 110  
 Thr Leu Phe Ser Thr Leu Ser Ser His Gln Pro Val Ala Trp Pro Asn  
 115 120 125  
 Pro Arg Glu Ile Ala His Leu Gly Asn Ala Asp Met Ile Gln Pro Gly  
 130 135 140  
 Leu Ile Pro Leu Gln Pro Asn Leu Asp Phe Met Asp Thr Phe Glu Pro  
 145 150 155 160  
 Phe Gln Asp Leu Phe Ser Ser Arg Ser Ile Phe Gly Ser Met Leu  
 165 170 175  
 Pro Ala Ser Ala Ser Ala Pro Val Pro Asp Pro Asn Asn Pro Pro Ala  
 180 185 190  
 Gln Glu Ser Ile Leu Pro Thr Thr Ala Leu Pro Thr Val Ser Leu Pro  
 195 200 205  
 Asp Ser Leu Ile Ala Pro Pro Thr Ala Pro Ser Leu Ala Arg  
 210 215 220

&lt;210&gt; 3633

&lt;211&gt; 1570

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3633

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 180  
 ctgtgtgaag atggcatttc tcaactgatta ttggaaaagc acaagagcca cgtgctggag  
 240  
 ccattgtcca gccttgccct ggaggagcag tgtctggcct tgtccctaga ttggtccact  
 300  
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 360  
 cagctccacc tcctgatggt gaatgagacg aggcccaggc tgcagaaagt ggctcatgg  
 420  
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 480  
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 540  
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 600  
 cgggagcaca tcctggccac gggaagctat gatgaacaca tcctactgtg ggacacacga  
 660

aacatgaagc agccgttggc agatacgccct gtgcaggggtg gggatatggag aatcaagtgg  
 720  
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 780  
 aactgccaaa aggcaatgga ggagaggcag gaggcgacgg tcttgacatc tcacacattg  
 840  
 cccgactcgc tgggtgatgg agccgactgg tcctggctgc tcttccgttc tctgcagcgg  
 900  
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 960  
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 1020  
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 1080  
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 1140  
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 1200  
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 1260  
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 1570

&lt;210&gt; 3634

&lt;211&gt; 277

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3634

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Ala	His	Gln	Phe	Glu	Ala	Trp	Ile	Ala	Ala	Phe	Asn	Tyr	Trp	His	Pro
		20						25					30		
Glu	Ile	Val	Tyr	Ser	Gly	Gly	Asp	Asp	Gly	Leu	Leu	Arg	Gly	Trp	Asp
		35					40					45			
Thr	Arg	Val	Pro	Gly	Lys	Phe	Leu	Phe	Thr	Ser	Xaa	Lys	Thr	His	His
	50					55					60				
Xaa	Gly	Val	Cys	Ser	Ile	Gln	Ser	Ser	Pro	His	Arg	Glu	His	Ile	Leu
65					70				75				80		
Ala	Thr	Gly	Ser	Tyr	Asp	Glu	His	Ile	Leu	Leu	Trp	Asp	Thr	Arg	Asn
			85					90					95		
Met	Lys	Gln	Pro	Leu	Ala	Asp	Thr	Pro	Val	Gln	Gly	Gly	Val	Trp	Arg
		100						105					110		
Ile	Lys	Trp	His	Pro	Phe	His	His	His	Leu	Leu	Leu	Ala	Ala	Cys	Met

115                      120                      125  
 His Ser Gly Phe Lys Ile Leu Asn Cys Gln Lys Ala Met Glu Glu Arg  
 130                      135                      140  
 Gln Glu Ala Thr Val Leu Thr Ser His Thr Leu Pro Asp Ser Leu Val  
 145                      150                      155                      160  
 Tyr Gly Ala Asp Trp Ser Trp Leu Leu Phe Arg Ser Leu Gln Arg Ala  
 165                      170                      175  
 Pro Ser Trp Ser Phe Pro Ser Asn Leu Gly Thr Lys Thr Ala Asp Leu  
 180                      185                      190  
 Lys Gly Ala Ser Glu Leu Pro Thr Pro Cys His Glu Cys Arg Glu Asp  
 195                      200                      205  
 Asn Asp Gly Glu Gly His Ala Arg Pro Gln Ser Gly Met Lys Pro Leu  
 210                      215                      220  
 Thr Glu Gly Met Arg Lys Asn Gly Thr Trp Leu Gln Ala Thr Ala Ala  
 225                      230                      235                      240  
 Thr Thr Arg Asp Cys Gly Val Asn Pro Glu Glu Ala Asp Ser Ala Phe  
 245                      250                      255  
 Ser Leu Leu Ala Thr Cys Ser Phe Tyr Asp His Ala Leu His Leu Trp  
 260                      265                      270  
 Glu Trp Glu Gly Asn  
 275

&lt;210&gt; 3635

&lt;211&gt; 835

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3635

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 gttggagttg gagagcagct ttctgagggg gactatgcac ggttacagca agtggatcct  
 120  
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 180  
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 240  
 gcaaatctta cagaactgca aggagtata gttggacagc cagtactggg ccaagcacag  
 300  
 ttggcagggc tggggcaagg aattctgaca gaaacacaac aagggttaat ggtagccagc  
 360  
 cctgctcaga ccctcaatga cacgctggat gacatcatgg cagcagtcag tggaagagca  
 420  
 tctgcaatgt caaactctcc taccacagc attgctgcat ccatttccca acctcagact  
 480  
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 600  
 cagaggaac tggtaaaaac actgctagag agaggagcta gtatagagca ccgagacaag  
 660  
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 720  
 ttgctggaca atggtgcaga cattgaagcc cagtctgaaa gaaccaagga cacaccactc  
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tccttggtt gttctggggg aagacaggag gtggtggagc tattgttagc tcgag  
835

<210> 3636

<211> 278

<212> PRT

<213> Homo sapiens

<400> 3636

Xaa Ile Gln Leu Gln Gln Gln Gln Ser Cys Gln His Leu Gly  
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Ala Arg Leu Gln Gln Val Asp Pro Val Leu Leu Lys Asp Glu Pro Gln  
35 40 45  
Gln Thr Ala Ala Gln Met Gly Cys Ala Pro Ile Gln Pro Leu Ala Met  
50 55 60  
Pro Gln Ala Leu Pro Leu Ala Ala Gly Pro Leu Pro Pro Gly Ser Ile  
65 70 75 80  
Ala Asn Leu Thr Glu Leu Gln Gly Val Ile Val Gly Gln Pro Val Leu  
85 90 95  
Gly Gln Ala Gln Leu Ala Gly Leu Gly Gln Gly Ile Leu Thr Glu Thr  
100 105 110  
Gln Gln Gly Leu Met Val Ala Ser Pro Ala Gln Thr Leu Asn Asp Thr  
115 120 125  
Leu Asp Asp Ile Met Ala Ala Val Ser Gly Arg Ala Ser Ala Met Ser  
130 135 140  
Asn Thr Pro Thr His Ser Ile Ala Ala Ser Ile Ser Gln Pro Gln Thr  
145 150 155 160  
Pro Thr Pro Ser Pro Ile Ile Ser Pro Ser Ala Met Leu Pro Ile Tyr  
165 170 175  
Pro Ala Ile Asp Ile Asp Ala Gln Thr Glu Ser Asn His Asp Thr Ala  
180 185 190  
Leu Thr Leu Ala Cys Ala Gly Gly His Glu Glu Leu Val Gln Thr Leu  
195 200 205  
Leu Glu Arg Gly Ala Ser Ile Glu His Arg Asp Lys Lys Gly Phe Thr  
210 215 220  
Pro Leu Ile Leu Ala Ala Thr Ala Gly His Val Gly Val Val Glu Ile  
225 230 235 240  
Leu Leu Asp Asn Gly Ala Asp Ile Glu Ala Gln Ser Glu Arg Thr Lys  
245 250 255  
Asp Thr Pro Leu Ser Leu Ala Cys Ser Gly Gly Arg Gln Glu Val Val  
260 265 270  
Glu Leu Leu Leu Ala Arg  
275

<210> 3637

<211> 2128

<212> DNA

<213> Homo sapiens

<400> 3637

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120  
cctgccaaacc cctgctcttc caggtcgggc cccggggttc tgcggctgtt agggacagag  
180  
gcaaagaagg gcaggacggt ccggtttccc gtggatgttc ccgcccgaga aagacagcaa  
240  
gttgtgtgtg cgcgggggac gcgggagggg aggtagccgc cgcggccag ccatggacca  
300  
tcatctttag tgcagaggat ggaaagtga tgcccagtaa gactgaagat ccattctgca  
360  
ttacggaaact gtggattatc tgtgggtccc tggatgttc acaccttcac tcaactcctgc  
420  
agtccctgaa cacttacttg gggtcctcat tgccctatct ggtgaaagat ggcatccagc  
480  
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540  
gtggggttct ttatgcctta ctggctctgg ggatcacagc tgggcaagcc tgtgtccttc  
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720  
tgcaccatag tgaccggcct gggttgtggc ctctcctcc tgggtggcgt cactgcctcc  
780  
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840  
cagtttcttg ggggcttgtt gattggtgct ggctgtgccc tctacctctt gggctgggac  
900  
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960  
gaaatcggct gggcctacta ctgcacggga gcaggtgcca ctgccgccat gctgctgtgc  
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1080  
accaagagca gacagaggag aagatgggccc aaaggggctt ggagagggtca aaacatccac  
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1200  
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1260  
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1380  
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1440  
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1560  
acatacagac atatgcatcc ccacacacgc ctatgcacaa acgtggatta tcgcacagac  
1620  
tgggaggttt agtgggtcat ttctcctctg ttttcttttt aatatacatt taaaatacag  
1680

tattatcact ttataaaaca tacattaagc ctaataaatg gaccaataag ccaaactatc  
 1740  
 agtattttgt atatcctgca taaactctaa tttagtctct caacatattt tcagtgttta  
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 1860  
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 1920  
 aggagagaat tcagccgaag atatgagagt aatgagagac atttccagc cattggatcg  
 1980  
 tgttttcttt tgtccattat tgtactgtgc tgtaccacat ttatttctat attcattttg  
 2040  
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 2128

<210> 3638  
 <211> 200  
 <212> PRT  
 <213> Homo sapiens

<400> 3638  
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 Phe Leu Cys Ala Ala Thr Ser Cys Val Gly Phe Phe Met Pro Tyr Trp  
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 Leu Trp Gly Ser Gln Leu Gly Lys Pro Val Ser Phe Gly Thr Phe Arg  
 35 40 45  
 Arg Cys Ser Tyr Pro Val His Asp Glu Ser Arg Gln Met Met Val Met  
 50 55 60  
 Val Glu Glu Cys Gly Arg Tyr Ala Ser Phe Gln Gly Ile Pro Ser Ala  
 65 70 75 80  
 Glu Trp Arg Ile Cys Thr Ile Val Thr Gly Leu Gly Cys Gly Leu Leu  
 85 90 95  
 Leu Leu Val Ala Leu Thr Ala Leu Met Gly Cys Cys Val Ser Asp Leu  
 100 105 110  
 Ile Ser Arg Thr Val Gly Arg Val Ala Gly Gly Ile Gln Phe Leu Gly  
 115 120 125  
 Gly Leu Leu Ile Gly Ala Gly Cys Ala Leu Tyr Pro Leu Gly Trp Asp  
 130 135 140  
 Ser Glu Glu Val Arg Gln Thr Cys Gly Tyr Thr Ser Gly Gln Phe Asp  
 145 150 155 160  
 Leu Gly Lys Cys Glu Ile Gly Trp Ala Tyr Tyr Cys Thr Gly Ala Gly  
 165 170 175  
 Ala Thr Ala Ala Met Leu Leu Cys Thr Trp Leu Ala Cys Phe Ser Gly  
 180 185 190  
 Lys Lys Gln Lys His Tyr Pro Tyr  
 195 200

<210> 3639  
 <211> 726  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 3639

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 120  
 aagactaaca gtggttatct ctcagcggga ttataaatgt tttggttttt tttttttttt  
 180  
 tgtacatttt agtatttttt gaaatttttt taataagcgt gtattacata cagtaaacia  
 240  
 aagcacatta atgtaggcag attatcaatg ttatgcattt cactgattgc atatctcttt  
 300  
 ttttatcaat ggtgaacatt gcaaatgatt gatacgtttt tcttaggaag tggcattgcc  
 360  
 acaaatgggt tttccaacac cagcagggcc tgagagtgtc atcaccatac actcttgccg  
 420  
 gcaataaaaa aatttcacct tttaatggat ttaaaaggga aaagttgggg tgttgggttc  
 480  
 tccagggcat ttctttcatt atgagtgaca tttttctgaa aggaacgtga tctcgttttc  
 540  
 tagccgcatg aagcatttct ccaacaagac ccactgtacc agtcctggga tctccacacc  
 600  
 tgtgccttct ccctgctctt tctaggtcct gattctcacc tctgcctgtg taataaccct  
 660  
 gtcatttttc ccttatccca gttccatgtc tgtgacaage ttggaggccg agttgcaage  
 720  
 taagat  
 726

&lt;210&gt; 3640

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3640

Met Leu His Ala Ala Arg Lys Arg Asp His Val Pro Phe Arg Lys Met  
 1 5 10 15  
 Ser Leu Ile Met Lys Glu Met Pro Trp Arg Thr Gln His Pro Asn Phe  
 20 25 30  
 Ser Leu Leu Asn Pro Leu Lys Gly Glu Ile Phe Leu Leu Pro Ala Arg  
 35 40 45  
 Val Tyr Gly Asp Asp Thr Leu Arg Pro Cys Trp Cys Trp Lys Asn His  
 50 55 60  
 Leu Trp Gln Cys His Phe Leu Arg Lys Thr Tyr Gln Ser Phe Ala Met  
 65 70 75 80  
 Phe Thr Ile Asp Lys Lys Arg Asp Met Gln Ser Val Lys Cys Ile Thr  
 85 90 95  
 Leu Ile Ile Cys Leu His  
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&lt;210&gt; 3641

&lt;211&gt; 455

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



<400> 3641  
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 120  
 agtccccgag cagtcacgcg agccgggacc ttgccccgct ggaacgcaga agcggccgtg  
 180  
 gagctcgaga cgctcgcgcg ctcacctcct gggcccctgt gcgtggggaa gtcaggaaga  
 240  
 agacgcccag tgaggtcacg gtgcccacga ggggtgattc ccctcggcct gaccacgcca  
 300  
 ggaggtggcc gaaggggaaga ggggtgggca ggggctgctc tgcacctct agcagagcgg  
 360  
 catccctgca ggtgtttgct ctggcgagga gaagccccag agagcagttc gggactgtgc  
 420  
 ggattggctt tagggagcca gcttttaaaa cgcgt  
 455

<210> 3642  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 3642  
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 20 25 30  
 Gln Ser Pro Glu Glu Ser Arg Ser Ser His Ala Ser Arg Asp Leu Ala  
 35 40 45  
 Pro Leu Glu Arg Arg Ser Gly Arg Gly Ala Arg Asp Ala Arg Ala Leu  
 50 55 60  
 Thr Ser Trp Ala Pro Val Arg Gly Glu Val Arg Lys Lys Thr Pro Ser  
 65 70 75 80  
 Glu Val Thr Val Pro Thr Arg Val Asp Ser Pro Arg Pro Asp His Ala  
 85 90 95  
 Arg Arg Trp Pro Lys Gly Arg Gly Trp Gly Arg Gly Cys Ser Ala Pro  
 100 105 110  
 Ser Ser Arg Ala Ala Ser Leu Gln Val Phe Ala Leu Ala Arg Arg Ser  
 115 120 125  
 Pro Arg Glu Gln Phe Gly Thr Val Arg Ile Gly Phe Arg Glu Pro Ala  
 130 135 140  
 Phe Lys Thr Arg  
 145

<210> 3643  
 <211> 2243  
 <212> DNA  
 <213> Homo sapiens

<400> 3643  
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120  
ctttgcaagc aggtggccag taaagctgag gagaatctgc tcatgggtgct ggggacagac  
180  
atgagtgtac ggagagctgc agtcattctt gcagatacac ttactcttct gtttgaaggg  
240  
attgcccgc tttgtggagac ccaccagcca atagtggaga cctattatgg gccagggaga  
300  
ctctataccc tgatcaaata tctgcaggtg gaattgtgaca gacaggtgga gaaggtggta  
360  
gacaagttca tcaagcaaag ggactaccac cagcagttcc ggcattgtca gaacaacctg  
420  
atgagaaatt ctacaacaga aaaaatcgaa ccaagagaac tggaccccat cctgactgag  
480  
gtcaccctga tgaatgcccg cagtgtgcta tactttacgt tcctcaagaa gaggattagc  
540  
tctgattttg aggtggggaga ctccatggcc tcagaggaag taaagcaaga gcaccagaag  
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660  
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720  
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780  
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840  
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900  
atgggctttc ctgccaccac cttccaggac atccagcgcg gggtgacaag tgccgtgaac  
960  
atcatgcaca gcagcctcca gcaaggcaaa ttgacacaa aaggcatcga gactactgac  
1020  
gaggcgaaga tgccttctt ggtgactctg aacaacgtgg aagtctgcag tgaaaacatc  
1080  
tccactctga agaagacact ggagagtgc tgcaccaagc tcttcagcca gggcattgga  
1140  
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1620  
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1680

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 1800  
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 1860  
 gatctgacag cccagacctt tctacggctg gcagcagaga aacaaagtct ggacccactc  
 1920  
 catgctctgc cctcagacct ggccaggtga tgctctgggg gcagcatctc cccaccgaga  
 1980  
 gaagcgggct cctaagtagg tgggaaagcc acggcaggca gcgagcagcc caggccagct  
 2040  
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 2100  
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 2160  
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 2220  
 aaaaaaaaaa aaaaaaaaaa aaa  
 2243

&lt;210&gt; 3644

&lt;211&gt; 560

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3644

Gly	Leu	His	Glu	Gly	Leu	Arg	Lys	Phe	Ser	Glu	Tyr	Leu	Cys	Lys
1			5				10					15		
Gln	Val	Ala	Ser	Lys	Ala	Glu	Glu	Asn	Leu	Leu	Met	Val	Leu	Gly
		20					25					30		Thr
Asp	Met	Ser	Asp	Arg	Arg	Ala	Ala	Val	Ile	Phe	Ala	Asp	Thr	Leu
		35				40					45			Thr
Leu	Leu	Phe	Glu	Gly	Ile	Ala	Arg	Ile	Val	Glu	Thr	His	Gln	Pro
	50				55					60				Ile
Val	Glu	Thr	Tyr	Tyr	Gly	Pro	Gly	Arg	Leu	Tyr	Thr	Leu	Ile	Lys
65					70				75			80		Tyr
Leu	Gln	Val	Glu	Cys	Asp	Arg	Gln	Val	Glu	Lys	Val	Val	Asp	Lys
			85					90				95		Phe
Ile	Lys	Gln	Arg	Asp	Tyr	His	Gln	Gln	Phe	Arg	His	Val	Gln	Asn
		100						105				110		Asn
Leu	Met	Arg	Asn	Ser	Thr	Thr	Glu	Lys	Ile	Glu	Pro	Arg	Glu	Leu
	115						120				125			Asp
Pro	Ile	Leu	Thr	Glu	Val	Thr	Leu	Met	Asn	Ala	Arg	Ser	Glu	Leu
	130					135					140			Tyr
Leu	Arg	Phe	Leu	Lys	Lys	Arg	Ile	Ser	Ser	Asp	Phe	Glu	Val	Gly
145					150					155				Asp
Ser	Met	Ala	Ser	Glu	Glu	Val	Lys	Gln	Glu	His	Gln	Lys	Cys	Leu
			165					170					175	Asp
Lys	Leu	Leu	Asn	Cys	Leu	Leu	Ser	Cys	Thr	Met	Gln	Glu	Leu	Ile
		180					185					190		
Gly	Leu	Tyr	Val	Thr	Met	Glu	Glu	Tyr	Phe	Met	Arg	Glu	Thr	Val
	195					200					205			Asn
Lys	Ala	Val	Ala	Leu	Asp	Thr	Tyr	Glu	Lys	Gly	Gln	Leu	Thr	Ser
														Ser

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      210              215              220
Met Val Asp Asp Val Phe Tyr Ile Val Lys Lys Cys Ile Gly Arg Ala
225              230              235              240
Leu Ser Ser Ser Ser Ile Asp Cys Leu Cys Ala Met Ile Asn Leu Ala
      245              250              255
Thr Thr Glu Leu Glu Ser Asp Phe Arg Asp Val Leu Cys Asn Lys Leu
      260              265              270
Arg Met Gly Phe Pro Ala Thr Thr Phe Gln Asp Ile Gln Arg Gly Val
      275              280              285
Thr Ser Ala Val Asn Ile Met His Ser Ser Leu Gln Gln Gly Lys Phe
      290              295              300
Asp Thr Lys Gly Ile Glu Ser Thr Asp Glu Ala Lys Met Ser Phe Leu
305              310              315              320
Val Thr Leu Asn Asn Val Glu Val Cys Ser Glu Asn Ile Ser Thr Leu
      325              330              335
Lys Lys Thr Leu Glu Ser Asp Cys Thr Lys Leu Phe Ser Gln Gly Ile
      340              345              350
Gly Gly Glu Gln Ala Gln Ala Lys Phe Asp Ser Cys Leu Ser Asp Leu
      355              360              365
Ala Ala Val Ser Asn Lys Phe Arg Asp Leu Leu Gln Glu Gly Leu Thr
      370              375              380
Glu Leu Asn Ser Thr Ala Ile Lys Pro Gln Val Gln Pro Trp Ile Asn
385              390              395              400
Ser Phe Phe Ser Val Ser His Asn Ile Glu Glu Glu Glu Phe Asn Asp
      405              410              415
Tyr Glu Ala Asn Asp Pro Trp Val Gln Gln Phe Ile Leu Asn Leu Glu
      420              425              430
Gln Gln Met Ala Glu Phe Lys Ala Ser Leu Ser Pro Val Ile Tyr Asp
      435              440              445
Ser Leu Thr Gly Leu Met Thr Ser Leu Val Ala Val Glu Leu Glu Lys
      450              455              460
Val Val Leu Lys Ser Thr Phe Asn Arg Leu Gly Gly Leu Gln Phe Asp
465              470              475              480
Lys Glu Leu Arg Ser Leu Ile Ala Tyr Leu Thr Thr Val Thr Thr Trp
      485              490              495
Thr Ile Arg Asp Lys Phe Ala Arg Leu Ser Gln Met Ala Thr Ile Leu
      500              505              510
Asn Leu Glu Arg Val Thr Glu Ile Leu Asp Tyr Trp Gly Pro Asn Ser
      515              520              525
Gly Pro Leu Thr Trp Arg Leu Thr Pro Ala Glu Val Arg Gln Val Leu
      530              535              540
Ala Leu Arg Ile Asp Phe Arg Ser Glu Asp Ile Lys Arg Leu Arg Leu
545              550              555              560

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&lt;210&gt; 3645

&lt;211&gt; 823

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3645

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ccagggtttt gtagatggat tcctcaaaaa ctcttttgag gtattgcctg ggcttctcag
120

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 180  
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 240  
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 300  
 catcgtaaccg agcacacagg ttgttgagga gttgctcgtg ctggccaaac aagcggatgt  
 360  
 agttggaggc ggggaagggc tcctagaaa ggcacgtgat ggtttccacc attttatact  
 420  
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 480  
 cataattagg ctgggccatt tgtacctca agggagttgg aatggcaggc ttggcaatat  
 540  
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 720  
 gccattcat ttgagtagta tctattggag aatttgggtga gggagccagc agctctgatg  
 780  
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 823

&lt;210&gt; 3646

&lt;211&gt; 243

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3646

Met	Asn	Gly	Pro	Thr	Ser	Asn	Phe	Ser	Ser	Lys	Glu	Ile	Gly	Phe	Gln
1				5				10					15		
Leu	Ala	Ala	Ala	Met	Leu	His	Leu	Phe	Asp	Pro	Thr	Leu	Glu	Pro	Val
			20					25					30		
Thr	Glu	Pro	Pro	Ala	Asn	Leu	Asp	Arg	Leu	Ile	Pro	Met	Tyr	Lys	Gly
		35					40					45			
Ala	Lys	Ile	Gln	Gly	Gly	Ile	Leu	Pro	Gly	Ser	Tyr	His	Tyr	Leu	His
	50					55					60				
Ile	Ala	Lys	Pro	Ala	Ile	Pro	Thr	Pro	Leu	Glu	Val	Gln	Met	Ala	Gln
65					70					75				80	
Pro	Asn	Tyr	Gly	Leu	Glu	Leu	Val	Thr	Gly	Ser	Ala	Lys	Asn	Gly	Thr
			85					90					95		
Tyr	Phe	Arg	Ile	His	Ile	Asn	Lys	Tyr	Lys	Met	Val	Glu	Thr	Ile	Thr
			100					105					110		
Cys	Leu	Ser	Arg	Glu	Pro	Phe	Pro	Ala	Ser	Asn	Tyr	Ile	Arg	Leu	Phe
		115					120					125			
Gly	Gln	His	Glu	Gln	Leu	Leu	Asn	Asn	Leu	Cys	Ala	Arg	Tyr	Asp	Glu
	130					135					140				
Asn	Leu	Ile	Thr	Asp	Leu	Tyr	Ser	Tyr	Phe	Thr	Glu	Pro	Trp	Cys	Leu
145				150						155				160	
Ala	Leu	Phe	His	Asp	Arg	Phe	Ile	Asp	Leu	Arg	Lys	Glu	Leu	Arg	Gln
			165					170					175		
Ile	Leu	Ala	Ser	Lys	Glu	Glu	Glu	Asp	Leu	Pro	Ser	Ile	Glu	Gln	Leu

	180		185		190										
Ala	His	Gln	Ile	Glu	Asp	Glu	Glu	Ile	Asn	Pro	Thr	Glu	Lys	Pro	Arg
	195					200				205					
Gln	Tyr	Leu	Lys	Arg	Val	Phe	Glu	Glu	Ser	Ile	Tyr	Lys	Thr	Leu	Val
	210					215				220					
Glu	Arg	Ser	Thr	Leu	Asp	Tyr	Leu	His	Tyr	Asn	Arg	Tyr	His	Leu	Pro
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Met	Tyr	Ala													

<210> 3647  
 <211> 584  
 <212> DNA  
 <213> Homo sapiens

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<210> 3648  
 <211> 63  
 <212> PRT  
 <213> Homo sapiens

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Ala	Trp	Leu	Trp	Ala	Arg	Met	Pro	Leu	Ser	Ala	Val	Thr	Ser	His	Cys
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Val	Ser	Ser	Arg	Trp	Arg	Ser	Pro	Thr	Arg	Ala	Pro	Thr	Pro	Ala	Thr
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<210> 3649  
 <211> 648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3649

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648

&lt;210&gt; 3650

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3650

Met	Ile	Leu	Lys	Ala	Cys	His	Ser	Cys	Phe	His	Phe	His	Thr	Asp	Lys
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His	Ile	Cys	Ser	Leu	Phe	Ala	Val	Leu	Pro	Phe	Phe	Phe	Gln	Val	Ala
			20					25					30		
Ile	Ser	Ala	Asp	Val	Lys	Glu	Val	Leu	Leu	Thr	Asp	Gly	Asn	Glu	Lys
			35				40					45			
Ala	Ile	Arg	Asn	Val	Gln	Asp	Ile	Ile	Thr	Arg	Asn	Gln	Lys	Ala	Gly
			50			55					60				
Val	Phe	Lys	Thr	Gln	Lys	Ile	Ser	Ser	Cys	Val	Leu	Arg	Trp	Asp	Asn
					70				75					80	
Glu	Thr	Asp	Val	Ser	Gln	Leu	Glu	Gly	His	Phe	Asp	Ile	Val	Met	Cys
				85				90					95		
Ala	Asp	Cys	Leu	Phe	Leu	Asp	Gln	Tyr	Arg	Ala	Ser	Leu	Val	Asp	Ala
				100				105					110		
Ile	Lys	Arg	Leu	Leu	Gln	Pro	Arg	Gly	Lys	Ala	Met	Val	Phe	Ala	Pro
			115			120						125			
Arg	Arg	Gly	Asn	Thr	Leu	Asn	Gln	Phe	Cys	Asn	Leu	Ala	Glu	Lys	Ala
			130			135					140				
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Phe	His	Ser	Lys	Leu	Lys	Lys	Glu	Asn	Pro	Asp	Ile	Tyr	Glu	Glu	Asn

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<212>	DNA		
<213>	Homo sapiens		
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1320			



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<210> 3652

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3652

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				20				25					30		
Gly	Ile	Asp	Tyr	Asn	Ser	Trp	Glu	Val	Gly	Pro	Lys	Phe	Arg	Gly	Val
				35				40				45			
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<210> 3653
<211> 283
<212> DNA
<213> Homo sapiens
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120
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180
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acatttttgc ggattgggag gagggccgac gccgtggccg gatagtctct ggagctgcct  
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 283

<210> 3654  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

<400> 3654  
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 Gln Ala Val Phe Ser Thr Gly Asp Ala Pro Ser Ala Gln Gln Asp Ala  
 35 40 45  
 Ser Ser Glu Leu Arg Leu His Ile Phe Ala Asp Trp Glu Glu Gly Arg  
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<210> 3655  
 <211> 3477  
 <212> DNA  
 <213> Homo sapiens

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<210> 3656

<211> 429

<212> PRT

<213> Homo sapiens

<400> 3656

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Cys	Met	Ala	Ser	Leu	Phe	Pro	Ala	Trp	Glu	Pro	Pro	Leu	Ile	Thr	Leu
		20						25				30			
Lys	Ala	Gly	Thr	Gly	Ser	Met	Arg	Ser	Gly	Phe	Pro	Ala	Lys	Ser	Ala
		35				40				45					
Met	Trp	Arg	Tyr	Arg	Gly	Thr	Pro	Phe	Ser	Lys	Ala	Val	Glu	His	Ile
	50				55				60						
Asn	Lys	Thr	Ile	Ala	Pro	Ala	Leu	Val	Ser	Lys	Lys	Leu	Asn	Val	Thr

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      100          105          110
Val Cys Lys Ala Gly Ala Val Glu Lys Gly Val Pro Leu Tyr Arg His
      115          120          125
Ile Ala Asp Leu Ala Gly Asn Ser Glu Val Ile Leu Pro Val Pro Ala
      130          135          140
Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly Asn Lys Leu Ala Met
      145          150          155          160
Gln Glu Phe Met Ile Leu Pro Val Gly Ala Ala Asn Phe Arg Glu Ala
      165          170          175
Met Arg Ile Gly Ala Glu Val Tyr His Asn Leu Lys Asn Val Ile Lys
      180          185          190
Glu Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly Asp Glu Gly Gly Phe
      195          200          205
Ala Pro Asn Ile Leu Glu Asn Lys Glu Gly Leu Glu Leu Leu Lys Thr
      210          215          220
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      225          230          235          240
Val Ala Ala Ser Glu Phe Phe Arg Ser Gly Lys Tyr Asp Leu Asp Phe
      245          250          255
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      260          265          270
Asp Leu Tyr Lys Ser Phe Ile Lys Asp Tyr Pro Val Val Ser Ile Glu
      275          280          285
Asp Pro Phe Asp Gln Asp Asp Trp Gly Ala Trp Gln Lys Phe Thr Ala
      290          295          300
Ser Ala Gly Ile Gln Val Val Gly Asp Asp Leu Thr Val Thr Asn Pro
      305          310          315          320
Lys Arg Ile Ala Gln Ala Val Asn Glu Lys Ser Cys Asn Cys Leu Leu
      325          330          335
Leu Lys Val Asn Gln Ile Gly Ser Val Thr Glu Ser Leu Gln Ala Cys
      340          345          350
Lys Leu Ala Gln Ala Asn Gly Trp Gly Val Met Val Ser His Arg Ser
      355          360          365
Gly Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu Val Val Gly Leu Cys
      370          375          380
Thr Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg Ser Glu Arg Leu Ala
      385          390          395          400
Lys Tyr Asn Gln Leu Leu Arg Ile Glu Glu Glu Leu Gly Ser Lys Ala
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Lys Phe Ala Gly Arg Asn Phe Arg Asn Pro Leu Ala Lys
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&lt;210&gt; 3657

&lt;211&gt; 337

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3657

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<210> 3658

<211> 99

<212> PRT

<213> Homo sapiens

<400> 3658

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Leu	Arg	Val	His	Phe	Arg	Leu	Lys	Ala	Tyr	Thr	Cys	Arg	Cys	Val	Thr
			20					25					30		
Cys	Ser	Phe	Ser	Ala	Gln	Gly	Val	His	Val	Gln	Val	Cys	Tyr	Val	Phe
		35				40					45				
Ile	Phe	Gly	Ser	Arg	Leu	Thr	Arg	Ala	Gly	Val	Pro	His	Val	His	Phe
	50					55				60					
Arg	Leu	Lys	Ala	Tyr	Met	Cys	Arg	Cys	Val	Thr	Cys	Ser	Leu	Ser	Ala
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Arg Thr Arg

<210> 3659

<211> 1025

<212> DNA

<213> Homo sapiens

<400> 3659

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<210> 3660

<211> 341

<212> PRT

<213> Homo sapiens

<400> 3660

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			20					25					30		
Glu	Ile	Ser	Asp	Leu	Glu	Asn	Glu	Val	Glu	Asn	Lys	Thr	Ala	Gln	Ile
		35					40					45			
Leu	Asn	Leu	Gln	Gln	His	Leu	Ser	Ala	Leu	Glu	Lys	Asp	Ile	Lys	His
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Asn	Glu	Glu	Leu	Leu	Lys	Arg	Cys	Gln	Leu	His	Tyr	Lys	Glu	Leu	Lys
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Met	Lys	Ile	Arg	Lys	Asn	Ile	Ser	Glu	Ile	Arg	Glu	Leu	Glu	Asn	Ile
				85					90					95	
Glu	Glu	His	Gln	Ser	Val	Asp	Ile	Ala	Thr	Leu	Glu	Asp	Glu	Ala	Gln
			100					105					110		
Glu	Asn	Lys	Ser	Lys	Met	Lys	Met	Val	Glu	Glu	His	Met	Glu	Gln	Gln
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Lys	Glu	Asn	Met	Glu	His	Leu	Lys	Ser	Leu	Lys	Ile	Glu	Ala	Glu	Asn
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Lys	Tyr	Asp	Ala	Ile	Lys	Phe	Lys	Ile	Asn	Gln	Leu	Ser	Glu	Leu	Ala
145					150				155					160	
Asp	Pro	Leu	Lys	Asp	Glu	Leu	Asn	Leu	Ala	Asp	Ser	Glu	Val	Asp	Asn
			165					170						175	
Gln	Lys	Arg	Gly	Lys	Arg	His	Tyr	Glu	Lys	Lys	Gln	Lys	Glu	His	Leu
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Asp	Thr	Leu	Asn	Lys	Lys	Lys	Arg	Glu	Leu	Asp	Met	Lys	Glu	Lys	Glu
		195					200					205			
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Ile Met Arg Gln Tyr Gln	Glu Ala Arg Glu Thr Tyr Leu Asp Leu Asp	255
	260	265
Ser Lys Val Arg Thr Leu	Lys Lys Phe Ile Lys Leu Leu Gly Glu Ile	270
	275	280
Met Glu His Arg Phe Lys	Thr Tyr Gln Gln Phe Arg Arg Cys Leu Thr	285
	290	295
Leu Arg Cys Lys Leu Tyr	Phe Asp Asn Leu Leu Ser Gln Arg Ala Tyr	300
305	310	315
Cys Gly Lys Met Asn Phe	Asp His Lys Asn Glu Thr Leu Ser Ile Ser	320
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Val Gln Pro Gly Glu		335
	340	

&lt;210&gt; 3661

&lt;211&gt; 1117

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3661

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<210> 3662

<211> 371

<212> PRT

<213> Homo sapiens

<400> 3662

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			20					25					30		
Pro	Ser	Val	Tyr	Pro	Tyr	Lys	Leu	Tyr	Arg	Leu	Leu	Pro	Met	Lys	Cys
		35					40					45			
Lys	Arg	Ala	Pro	Tyr	Lys	Ser	Tyr	Arg	Asn	Ser	Ser	Tyr	Glu	Asn	Ala
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Arg	Glu	Asn	Ser	Gln	Met	Asn	Glu	Ser	Ala	Pro	Gly	Thr	Tyr	Val	Val
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Gln	Asn	Pro	His	Ser	Ser	Glu	Leu	Pro	Thr	Leu	Asn	Phe	Gln	Asp	Thr
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Lys	Trp	Gly	Glu	Glu	Ala	Leu	Lys	Met	Asp	Leu	Asp	Asn	Asn	Phe	Tyr
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Leu	Arg	Ala	Gly	Asp	Val	Pro	Val	Leu	Ser	Leu	Ser	Asn	Ser	Ser	Glu
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Asn	Ala	Ala	Ser	Val	Ile	Ser	Tyr	Ser	Gly	Ser	Ala	Pro	Ser	Val	Ile
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Val	His	Ser	Ser	Gln	Phe	Ser	Ser	Val	Ile	Met	His	Ser	Asn	Ala	Ile
		195					200					205			
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Ser	Gln	Ser	Leu	Lys	Asp	Asp	Ser	Lys	Pro	Glu	Pro	Asp	Lys	Val	Gly
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Arg	Phe	Ala	Ser	Arg	Pro	Lys	Ser	Ile	Lys	Glu	Lys	Lys	Lys	Thr	Thr
			245					250						255	
Ser	His	Thr	Arg	Gly	Glu	Ile	Pro	Glu	Glu	Ser	Asn	Tyr	Val	Ala	Asp
		260						265					270		
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Lys	Ile	Glu	Thr	Tyr	Ile	Ala	Lys	Pro	Ala	Leu	Pro	Gly	Thr	Ser	Thr
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Ser Glu Cys
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&lt;210&gt; 3663

&lt;211&gt; 481

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3663

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481

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&lt;210&gt; 3664

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3664

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Arg Asp Met Gln Leu Ile Ala Leu Glu Gln Leu Cys Met Leu Leu Leu
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Met Ser Asp Asn Val Asp Arg Cys Phe Glu Thr Cys Pro Pro Arg Thr
          35          40          45
Phe Leu Pro Ala Leu Tyr Lys Ile Phe Leu Asp Glu Ser Ala Pro Asp
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Asn Val Leu Glu Val Thr Ala Arg Ala Ile Thr Tyr Tyr Leu Asp Val
65          70          75          80
Ser Ala Glu Cys Thr Arg Arg Ile Val Gly Val Asp Gly Ala Ile Lys
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Ala Leu Cys Asn Arg Leu Val Val Val Glu Leu Asn Asn Arg Thr Ser

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	130				135										

&lt;210&gt; 3665

&lt;211&gt; 6633

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3665

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<212> PRT

<213> Homo sapiens

<400> 3666

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			20					25					30		
Val	Leu	Val	Cys	Leu	Tyr	Thr	Glu	Cys	Ser	His	Ser	Ala	Leu	Arg	Arg
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Asp	Lys	Tyr	Val	Ala	Glu	Phe	Leu	Glu	Trp	Ala	Lys	Pro	Phe	Thr	Gln
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Leu	Val	Lys	Glu	Met	Gln	Leu	His	Arg	Glu	Asp	Phe	Glu	Ile	Ile	Lys
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Val	Ile	Gly	Arg	Gly	Ala	Phe	Gly	Glu	Val	Ala	Val	Val	Lys	Met	Lys
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Asn	Thr	Glu	Arg	Ile	Tyr	Ala	Met	Lys	Ile	Leu	Asn	Lys	Trp	Glu	Met
			100					105					110		
Leu	Lys	Arg	Ala	Glu	Thr	Ala	Cys	Phe	Arg	Glu	Glu	Arg	Asp	Val	Leu
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Val	Asn	Gly	Asp	Cys	Gln	Trp	Ile	Thr	Ala	Leu	His	Tyr	Ala	Phe	Gln
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Asp	Glu	Asn	His	Leu	Tyr	Leu	Val	Met	Asp	Tyr	Tyr	Val	Gly	Gly	Asp
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Leu	Leu	Thr	Leu	Leu	Ser	Lys	Phe	Glu	Asp	Lys	Leu	Pro	Glu	Asp	Met
			165					170					175		
Ala	Arg	Phe	Tyr	Ile	Gly	Glu	Met	Val	Leu	Ala	Ile	Asp	Ser	Ile	His
			180					185					190		
Gln	Leu	His	Tyr	Val	His	Arg	Asp	Ile	Lys	Pro	Asp	Asn	Val	Leu	Leu
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Asp	Val	Asn	Gly	His	Ile	Arg	Leu	Ala	Asp	Phe	Gly	Ser	Cys	Leu	Lys
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Met	Asn	Asp	Asp	Gly	Thr	Val	Gln	Ser	Ser	Val	Ala	Val	Gly	Thr	Pro



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Asp Tyr Ile Ser Pro Glu Ile Leu Gln Ala Met Glu Asp Gly Met Gly
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Lys Tyr Gly Pro Glu Cys Asp Trp Trp Ser Leu Gly Val Cys Met Tyr
          260          265          270
Glu Met Leu Tyr Gly Glu Thr Pro Phe Tyr Ala Glu Ser Leu Val Glu
          275          280          285
Thr Tyr Gly Lys Ile Met Asn His Glu Glu Arg Phe Gln Phe Pro Ser
          290          295          300
His Val Thr Asp Val Ser Glu Glu Ala Lys Asp Leu Ile Gln Arg Leu
305          310          315          320
Ile Cys Ser Arg Glu Arg Arg Leu Gly Gln Asn Gly Ile Glu Asp Phe
          325          330          335
Lys Lys His Ala Phe Phe Glu Gly Leu Asn Trp Glu Asn Ile Arg Asn
          340          345          350
Leu Glu Ala Pro Tyr Ile Pro Asp Val Ser Ser Pro Ser Asp Thr Ser
          355          360          365
Asn Phe Asp Val Asp Asp Asp Val Leu Arg Asn Thr Glu Ile Leu Pro
370          375          380
Pro Gly Ser His Thr Gly Phe Ser Gly Leu His Leu Pro Phe Ile Gly
385          390          395          400
Phe Thr Phe Thr Thr Glu Ser Cys Phe Ser Asp Arg Gly Ser Leu Lys
          405          410          415
Ser Ile Met Gln Ser Asn Thr Leu Thr Lys Asp Glu Asp Val Gln Arg
          420          425          430
Asp Leu Glu His Ser Leu Gln Met Glu Ala Tyr Glu Arg Arg Ile Arg
          435          440          445
Arg Leu Glu Gln Glu Lys Leu Glu Leu Ser Arg Lys Leu Gln Glu Ser
450          455          460
Thr Gln Thr Val Gln Ser Leu His Gly Ser Ser Arg Ala Leu Ser Asn
465          470          475          480
Ser Asn Arg Asp Lys Glu Ile Lys Lys Leu Asn Glu Glu Ile Glu Arg
          485          490          495
Leu Lys Asn Lys Ile Ala Asp Ser Asn Arg Leu Glu Arg Gln Leu Glu
          500          505          510
Asp Thr Val Ala Leu Arg Gln Glu Arg Glu Asp Ser Thr Gln Arg Leu
          515          520          525
Arg Gly Leu Glu Lys Gln His Arg Val Val Arg Gln Glu Lys Glu Glu
530          535          540
Leu His Lys Gln Leu Val Glu Ala Ser Glu Arg Leu Lys Ser Gln Ala
545          550          555          560
Lys Glu Leu Lys Asp Ala His Gln Gln Arg Lys Leu Ala Leu Gln Glu
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Phe Ser Glu Leu Asn Glu Arg Met Ala Glu Leu Arg Ala Gln Lys Gln
          580          585          590
Lys Val Ser Arg Gln Leu Arg Asp Lys Glu Glu Glu Met Glu Val Ala
          595          600          605
Thr Gln Lys Val Asp Ala Met Arg Gln Glu Met Arg Arg Ala Glu Lys
610          615          620
Leu Arg Lys Glu Leu Glu Ala Gln Leu Asp Asp Ala Val Ala Glu Ala
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Ser Lys Glu Arg Lys Leu Arg Glu His Ser Glu Asn Phe Cys Lys Gln
          645          650          655
Met Glu Ser Glu Leu Glu Ala Leu Lys Val Lys Gln Gly Gly Arg Gly

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Glu	Leu	Glu	Lys	Lys	Val	Leu	Phe	Tyr	Glu	Glu	Glu	Leu	Val	Arg	Arg				
690							695					700							
Glu	Ala	Ser	His	Val	Leu	Glu	Val	Lys	Asn	Val	Lys	Lys	Glu	Val	His				
705							710					715							
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Lys	Asp	Lys	Leu	Glu	Lys	Ser	Lys	Arg	Glu	Arg	His	Asn	Glu	Met	Glu				
740							745					750							
Glu	Ala	Val	Gly	Thr	Ile	Lys	Asp	Lys	Tyr	Glu	Arg	Glu	Arg	Ala	Met				
755							760					765							
Leu	Phe	Asp	Glu	Asn	Lys	Lys	Leu	Thr	Ala	Glu	Asn	Glu	Lys	Leu	Cys				
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Ser	Phe	Val	Asp	Lys	Leu	Thr	Ala	Gln	Asn	Arg	Gln	Leu	Glu	Asp	Glu				
785							790					795							
Leu	Gln	Asp	Leu	Ala	Ala	Lys	Lys	Glu	Ser	Val	Ala	His	Trp	Glu	Ala				
805							810					815							
Gln	Ile	Ala	Glu	Ile	Ile	Gln	Trp	Val	Ser	Asp	Glu	Lys	Asp	Ala	Arg				
820							825					830							
Gly	Tyr	Leu	Gln	Ala	Leu	Ala	Ser	Lys	Met	Thr	Glu	Glu	Leu	Glu	Ala				
835							840					845							
Leu	Arg	Ser	Ser	Ser	Leu	Gly	Ser	Arg	Thr	Leu	Asp	Pro	Leu	Trp	Lys				
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Val	Arg	Arg	Ser	Gln	Lys	Leu	Asp	Met	Ser	Ala	Arg	Leu	Glu	Leu	Gln				
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Ser	Ala	Leu	Glu	Ala	Glu	Ile	Arg	Ala	Lys	Gln	Leu	Val	Gln	Glu	Glu				
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Asp	Ser	Glu	Ala	Lys	Asn	Arg	Glu	Leu	Leu	Glu	Glu	Met	Glu	Ile	Leu				
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Lys	Lys	Lys	Met	Glu	Glu	Lys	Phe	Arg	Ala	Asp	Thr	Gly	Leu	Lys	Leu				
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Pro	Asp	Phe	Gln	Asp	Ser	Ile	Phe	Glu	Tyr	Phe	Asn	Thr	Ala	Pro	Leu				
945							950					955							
Ala	His	Asp	Leu	Thr	Phe	Arg	Asp	Ser	Leu	Ser	Ser	Ser	Ser	Ala	Ser				
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Thr	Gln	Ala	Pro	Lys	Pro	Glu	Ala	Ser	Pro	Ser	Met	Ser	Val	Ala	Ala				
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Ser	Glu	Gln	Gln	Glu	Asp	Met	Ala	Arg	Pro	Pro	Gln	Arg	Pro	Ser	Ala				
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Pro	Gln	Val	Cys	Pro	Ile	Pro	Pro	Glu	Gln	Ser	Lys								

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Val Asp Val Gln Arg Gly Ile Gly Thr Ala Tyr Lys Gly His Val Lys
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Val Val Cys Asp Cys Lys Leu Phe Leu Tyr Asp Leu Pro Glu Gly Lys
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Ser Thr Gln Pro Gly Val Ile Ala Ser Gln Val Leu Asp Leu Arg Asp
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Thr Arg Arg Asp Ile Pro Cys Ile Phe Arg Val Thr Ala Ser Leu Leu
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Gly Ala Pro Ser Lys Thr Ser Ser Leu Leu Ile Leu Thr Glu Asn Glu
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Asn Glu Lys Arg Lys Trp Val Gly Ile Leu Glu Gly Leu Gln Ser Ile
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Leu His Lys Asn Arg Leu Arg Asn Gln Val Val His Val Pro Leu Glu
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Ile Val Asp Ala Asp Arg Ile Ala Val Gly Leu Glu Glu Gly Leu Tyr
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Val Ile Glu Val Thr Arg Asp Val Ile Val Arg Ala Ala Asp Cys Lys
          1285          1290          1295
Lys Val His Gln Ile Glu Leu Ala Pro Arg Glu Lys Ile Val Ile Leu
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Leu Cys Gly Arg Asn His His Val His Leu Tyr Pro Trp Ser Ser Leu
          1315          1320          1325
Asp Gly Ala Glu Gly Ser Phe Asp Ile Lys Leu Pro Glu Thr Lys Gly
          1330          1335          1340
Cys Gln Leu Met Ala Thr Ala Thr Leu Lys Arg Asn Ser Gly Thr Cys
1345          1350          1355          1360
Leu Phe Val Ala Val Lys Arg Leu Ile Leu Cys Tyr Glu Ile Gln Arg
          1365          1370          1375
Thr Lys Pro Phe His Arg Lys Phe Asn Glu Ile Val Ala Pro Gly Ser
          1380          1385          1390
Val Gln Cys Leu Ala Val Leu Arg Asp Arg Leu Cys Val Gly Tyr Pro
          1395          1400          1405
Ser Gly Phe Cys Leu Leu Ser Ile Gln Gly Asp Gly Gln Pro Leu Asn
          1410          1415          1420
Leu Val Asn Pro Asn Asp Pro Ser Leu Ala Phe Leu Ser Gln Gln Ser
1425          1430          1435          1440
Phe Asp Ala Leu Cys Ala Val Glu Leu Glu Ser Glu Glu Tyr Leu Leu
          1445          1450          1455
Cys Phe Ser His Met Gly Leu Tyr Val Asp Pro Gln Gly Arg Arg Ala
          1460          1465          1470
Arg Ala Gln Glu Leu Met Trp Pro Ala Ala Pro Val Ala Cys Ser Cys
          1475          1480          1485
Ser Pro Thr His Val Thr Val Tyr Ser Glu Tyr Gly Val Asp Val Phe
          1490          1495          1500
Asp Val Arg Thr Met Glu Trp Val Gln Thr Ile Gly Leu Arg Arg Ile
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Gln	Arg	Arg	Glu	Met	Leu	Arg	Asp	Pro	Glu	Leu	Arg	Ser	Lys	Met	Ile						
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<210> 3667

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<212> DNA

<213> Homo sapiens

<400> 3667

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<210> 3668

&lt;211&gt; 117

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3668

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      20              25              30
Glu Asp Gly Glu Ala Val Val Ser Pro Ser Asp Lys Thr Lys Asn Asp
      35              40              45
Asp Asp Ile Met Asp Pro Ile Ser Lys Phe Met Glu Arg Lys Lys Leu
      50              55              60
Lys Glu Ser Glu Glu Lys Glu Val Leu Leu Lys Thr Asn Leu Ser Gly
65              70              75              80
Arg Gln Ser Pro Ser Phe Lys Leu Ser Leu Ser Ser Gly Thr Lys Thr
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Asn Leu Thr Ser Gln Ser Ser Thr Thr Asn Leu Pro Gly Ser Pro Gly
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Ser Pro Gly Ser Pro
      115

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&lt;210&gt; 3669

&lt;211&gt; 1226

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3669

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gaattagcag caaaagtggc tcagatgttt tatgtggctg agccaaagca agtgcccat
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 1020  
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<210> 3670

<211> 385

<212> PRT

<213> Homo sapiens

<400> 3670

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			20					25					30		
Asn	His	Ser	Leu	Tyr	Glu	Asn	Leu	Asp	Glu	Glu	Leu	Asn	Glu	Glu	Leu
			35				40					45			
Ala	Ala	Lys	Val	Val	Gln	Met	Phe	Tyr	Val	Ala	Glu	Pro	Lys	Gln	Val
	50					55				60					
Pro	His	Ile	Leu	Cys	Ser	Pro	Ser	Met	Lys	Asn	Ile	Asn	Pro	Leu	Thr
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Leu	Val	Thr	Leu	Ser	Lys	Ala	Ala	Val	Ala	Leu	Lys	Met	Gly	Asp	Leu
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Asp	Val	Tyr	Arg	Asn	Glu	Met	Lys	Ser	His	Pro	Glu	Met	Lys	Leu	Val
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Gln	Ile	Val	Pro	Thr	Glu	Leu	Ala	Thr	His	Leu	Lys	Glu	Thr	Gln	Pro
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Gly	Ile	Glu	Glu	Ala	Asp	Ser	Phe	Phe	Lys	Val	Leu	Cys	Gly	Lys	Asp
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Glu	Asp	Thr	Ile	Pro	Gln	Leu	Leu	Ile	Asp	Phe	Trp	Glu	Ala	Gln	Leu
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Val	Ala	Cys	Leu	Pro	Asp	Val	Val	Leu	Gln	Glu	Leu	Phe	Phe	Lys	Leu
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Thr	Pro	Leu	Arg	Thr	Ser	Glu	Asp	Leu	Ile	Asn	Ala	Cys	Ser	His	Tyr
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Cys	Gly	Pro	Ser	Phe	Asp	Ile	Ala	Ser	Ile	Ile	Pro	Phe	Leu	Glu	Pro
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Leu	Ser	Glu	Asp	Thr	Ile	Ala	Gly	Leu	Ser	Val	His	Val	Leu	Cys	Arg
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Thr	Arg	Leu	Lys	Glu	Tyr	Glu	Gln	Cys	Ile	Asp	Ile	Leu	Leu	Glu	Arg
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Asn	Arg	Thr	Leu	Trp	Trp	Lys	Lys	Leu	Leu	Pro	Glu	Leu	Cys	Gln	Arg
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Ile	Lys	Cys	Gly	Gly	Glu	Lys	Tyr	Gln	Leu	Tyr	Leu	Ser	Ser	Leu	Lys
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Ala  
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&lt;210&gt; 3671

&lt;211&gt; 828

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3671

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&lt;210&gt; 3672

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 <212> PRT  
 <213> Homo sapiens

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 Gly Gly Arg Met Val Thr Tyr Glu His Leu Arg Glu Val Val Phe Gly  
 35 40 45  
 Lys Ser Glu Asp Glu His Tyr Pro Leu Trp Lys Ser Val Ile Gly Gly  
 50 55 60  
 Met Met Ala Gly Val Ile Gly Gln Phe Leu Ala Asn Pro Thr Asp Leu  
 65 70 75 80  
 Val Lys Val Gln Met Gln Met Glu Gly Lys Arg Lys Leu Glu Gly Lys  
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<210> 3673  
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 <212> DNA  
 <213> Homo sapiens

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 780



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<210> 3674

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3674

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Val	Ile	Pro	Leu	Asp	Cys	Cys	Arg	Leu	Val	Lys	Tyr	Asp	Glu	Phe	His
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Asp	Tyr	Leu	Glu	Arg	Ser	Tyr	Glu	Gly	Glu	Glu	Asp	Thr	Pro	Met	Gly
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225				230					235					240	
Glu	Pro	Phe	Tyr	Thr	Ile	Phe	Ser	Trp	Ser	Val	Leu	Arg	Ile	Phe	Leu
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			260												

<210> 3675

<211> 837

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3675

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837

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&lt;210&gt; 3676

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3676

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20          25          30
Gln Glu Gly Gly Gly Ile Ser Arg Val Gly Val Cys Lys Val Met His
35          40          45
Pro Glu Gly Asn Gly Arg Ser Gly Phe Leu Ile His Gly Glu Arg Gln
50          55          60
Lys Asp Lys Leu Val Val Leu Glu Cys Tyr Val Arg Lys Asp Leu Val
65          70          75          80
Tyr Thr Lys Ala Asn Pro Thr Phe His His Trp Lys Val Asp Asn Arg
85          90          95
Lys Phe Gly Leu Thr Phe Gln Ser Pro Ala Asp Ala Arg Ala Phe Asp
100         105         110
Arg Gly Val Arg Lys Ala Ile Glu Asp Leu Ile Glu Glu Val Glu Asn

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115                      120                      125  
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 <212> DNA  
 <213> Homo sapiens

<400> 3677  
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 <212> PRT  
 <213> Homo sapiens

<400> 3678  
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 Met Pro Leu Trp Val Cys Gln Ser Cys Arg Lys Ser Met Glu Glu Asp  
 35                      40                      45  
 Glu Arg Gln Thr Gly Arg Glu His Ala Val Ala Ile Ser Leu Ser His  
 50                      55                      60  
 Thr Ser Cys Lys Ser Gln Ser Cys Gly Asp Asp Ser His Ser Ser Ser  
 65                      70                      75                      80  
 Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Cys Pro Gly  
 85                      90                      95  
 Asn Ser Gly Asp Trp Asp Pro Ser Ser Phe Leu Ser Ala His Lys Leu  
 100                      105                      110  
 Ser Gly Leu Trp Asn Ser Pro His Ser Ser Gly Ala Met Pro Gly Ser  
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 Ser Leu Gly Ser Pro Pro Thr Ile Pro Gly Ala  
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<210> 3679  
 <211> 567

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3679

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&lt;210&gt; 3680

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3680

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 Thr Ser Ile Phe Thr Ala Pro Lys Glu Ile Ala Glu Ile Lys Ala Gln  
 35 40 45  
 Leu Glu Thr Ala Leu Lys Trp Arg Asn Tyr Glu Val Lys Leu Arg Leu  
 50 55 60  
 Leu Leu His Leu Glu Glu Leu Gln Met Glu His Asp Ile Arg His Tyr  
 65 70 75 80  
 Asp Leu Glu Ser Val Pro Met Thr Trp Asp Pro Val Asp Gln Asn Pro  
 85 90 95  
 Arg Leu Leu Thr Leu Glu Val Pro Gly Val Thr Glu Ser Arg Pro Ser  
 100 105 110  
 Val Leu Arg Gly Asp His Leu Phe Ala Leu Leu Ser Ser Glu Thr His  
 115 120 125  
 Gln Glu Asp Pro Ile Thr Tyr Lys Gly Phe Val His Lys Val Glu Leu  
 130 135 140  
 Asp Arg Val Lys Leu Ser Phe Ser Met Ser Leu Leu Ser Arg Phe Val  
 145 150 155 160  
 Asp Gly Leu Thr Phe Lys Val Asn Phe Thr Phe Asn Arg Gln Pro Leu  
 165 170 175  
 Arg Val Gln His Arg Ala Trp Glu Leu Thr Gly Arg Trp

180

185

<210> 3681  
 <211> 788  
 <212> DNA  
 <213> Homo sapiens

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<210> 3682  
 <211> 185  
 <212> PRT  
 <213> Homo sapiens

<400> 3682  
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 35 40 45  
 Gly Pro Pro Gly Pro Thr Phe Arg Gln Gln Asp Gly Leu Leu Arg  
 50 55 60  
 Gly Gly Tyr Glu Ala Gln Glu Pro Leu Cys Pro Ala Val Pro Pro Arg  
 65 70 75 80  
 Lys Ala Val Pro Val Thr Ser Phe Thr Tyr Ile Asn Glu Asp Phe Arg



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<210> 3684

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3684

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Thr	Leu	Glu	Glu	Leu	Thr	Ala	Val	Pro	Phe	Val	Asn	Gly	Val	Leu	Phe
			20					25					30		
Cys	Lys	Val	Arg	Leu	Leu	Asp	Gly	Gly	Asp	Phe	Val	Ser	Leu	Ser	Ser
		35					40					45			
Arg	Glu	Glu	Val	Gln	Glu	Asn	Cys	Val	Arg	Trp	Arg	Lys	Arg	Phe	Thr
	50					55					60				
Phe	Val	Cys	Lys	Met	Ser	Ala	Asn	Pro	Ala	Thr	Gly	Leu	Leu	Asp	Pro
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Cys	Val	Phe	Arg	Val	Ser	Val	Arg	Lys	Glu	Leu	Lys	Gly	Gly	Lys	Ala
				85					90					95	
Tyr	Ser	Lys	Leu	Gly	Phe	Ala	Asp	Leu	Asn	Leu	Ala	Glu	Phe	Ala	Gly
			100					105					110		
Ser	Gly	Ser	Thr	Val	Arg	Cys	Cys	Leu	Leu	Glu	Gly	Tyr	Asp	Thr	Lys
		115					120					125			
Asn	Thr	Arg	Gln	Asp	Asn	Ser	Ile	Leu	Lys	Val	Thr	Ile	Gly	Met	Phe
	130					135					140				
Leu	Leu	Ser	Gly	Asp	Pro	Cys	Phe	Lys	Thr	Pro	Pro	Ser	Thr	Ala	Lys
145					150					155					160
Ser	Ile	Ser	Ile	Pro	Gly	Gln	Asp	Ser	Ser	Leu	Gln	Leu	Thr	Cys	Lys
			165						170					175	
Gly	Gly	Gly	Thr	Ser	Ser	Gly	Gly	Ser	Ser	Thr	Asn	Ser	Leu	Thr	Gly
			180					185					190		
Ser	Arg	Pro	Pro	Lys	Ala	Arg	Pro	Thr	Ile	Leu	Ser	Ser	Gly	Leu	Pro
	195						200						205		
Glu	Glu	Pro	Asp	Gln	Asn	Leu	Ser	Ser	Pro	Glu	Glu	Val	Phe	His	Ser
	210					215						220			
Gly	His	Ser	Arg	Asn	Ser	Ser	Tyr	Ala	Ser	Gln	Gln	Ser	Lys	Ile	Ser
225					230					235					240
Gly	Tyr	Ser	Thr	Glu	His	Ser	His	Ser	Ser	Ser	Leu	Ser	Asp	Leu	Thr
			245						250					255	
His	Arg	Arg	Asn	Thr	Ser	Thr	Ser	Ser	Ser	Ala	Ser	Gly	Gly	Leu	Gly
			260					265					270		
Met	Thr	Val	Glu	Gly	Pro	Glu	Gly	Ser	Glu	Arg	Glu	His	Arg	Pro	Pro
	275						280						285		
Glu	Lys	Pro	Pro	Arg	Pro	Pro	Arg	Pro	Leu	His	Leu	Ser	Asp	Arg	Ser
	290					295					300				
Phe	Arg	Arg	Lys	Lys	Asp	Ser	Val	Glu	Ser	His	Pro	Thr	Trp	Val	Asp
305					310					315					320
Asp	Thr	Arg	Ile	Asp	Ala	Asp	Ala	Ile	Val	Glu	Lys	Ile	Val	Gln	Ser



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<210> 3686  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 3686  
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 Pro Val Cys Cys Glu Thr Asp His Arg Pro Ala Gln Arg Ser Pro Arg  
 35 40 45  
 Arg Val Pro Cys Leu Cys Pro Pro Arg Arg Arg His Pro Pro Arg Ser  
 50 55 60  
 Phe Thr Ser Cys Thr Phe Ser Gly Ser Arg Ser His Ile His Pro Thr  
 65 70 75 80  
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 Ala Leu Gly Asn Arg Ile Gly Lys Arg Ser Pro Arg Val Asp Ala  
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<210> 3687  
 <211> 566  
 <212> DNA  
 <213> Homo sapiens

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 360  
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 420  
 ccagcttcca atctcccacg gtctctgcg tctgcagcac cgtcccaggc tgagccagcc  
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<210> 3688

<211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 3688  
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 1 5 10 15  
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 20 25 30  
 Glu Tyr Pro Pro Gly Leu Leu Val Ala Val His Leu Phe Ala Leu Met  
 35 40 45  
 Xaa Leu His Val Ser Ala Ala Pro His  
 50 55

<210> 3689  
 <211> 1562  
 <212> DNA  
 <213> Homo sapiens

<400> 3689  
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1200  
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tc  
1562

&lt;210&gt; 3690

&lt;211&gt; 504

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3690

Met	Trp	Glu	Lys	Met	Glu	Thr	Lys	Thr	Ile	Val	Tyr	Asp	Leu	Asp	Thr
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Ser	Gly	Gly	Leu	Met	Glu	Gln	Ile	Gln	Ala	Leu	Leu	Ala	Pro	Pro	Lys
			20					25					30		
Thr	Asp	Glu	Ala	Glu	Lys	Arg	Ser	Arg	Lys	Pro	Glu	Lys	Glu	Pro	Arg
		35					40					45			
Arg	Ser	Gly	Arg	Ala	Thr	Asn	His	Asp	Ser	Cys	Asp	Ser	Cys	Lys	Glu
	50					55					60				
Gly	Gly	Asp	Leu	Leu	Cys	Cys	Asp	His	Cys	Pro	Ala	Ala	Phe	His	Leu
65					70				75					80	
Gln	Cys	Cys	Asn	Pro	Leu	Ser	Glu	Glu	Met	Leu	Pro	Pro	Gly	Glu	
			85					90					95		
Trp	Met	Cys	His	Arg	Cys	Thr	Val	Arg	Arg	Lys	Lys	Arg	Glu	Gln	Lys
			100					105					110		
Lys	Glu	Leu	Gly	His	Val	Asn	Gly	Leu	Val	Asp	Lys	Ser	Gly	Lys	Arg
			115				120					125			
Thr	Thr	Ser	Pro	Ser	Ser	Asp	Thr	Asp	Leu	Leu	Asp	Arg	Ser	Ala	Ser
	130					135					140				
Lys	Thr	Glu	Leu	Lys	Ala	Ile	Ala	His	Ala	Arg	Ile	Leu	Glu	Arg	Arg
145					150					155				160	
Ala	Ser	Arg	Pro	Gly	Thr	Pro	Thr	Ser	Ser	Ala	Ser	Thr	Glu	Thr	Pro
			165					170					175		
Thr	Ser	Glu	Gln	Asn	Asp	Val	Asp	Glu	Asp	Ile	Ile	Asp	Val	Asp	Glu
			180					185				190			
Glu	Pro	Val	Ala	Ala	Glu	Pro	Asp	Tyr	Val	Gln	Pro	Gln	Leu	Arg	Arg
		195					200					205			
Pro	Phe	Glu	Leu	Leu	Ile	Ala	Ala	Ala	Met	Glu	Arg	Asn	Pro	Thr	Gln

210 215 220  
 Phe Gln Leu Pro Asn Glu Leu Thr Cys Thr Thr Ala Leu Pro Gly Ser  
 225 230 235 240  
 Ser Lys Arg Arg Arg Lys Glu Glu Thr Thr Gly Lys Asn Val Lys Lys  
 245 250 255  
 Thr Gln His Glu Leu Asp His Asn Gly Leu Val Pro Leu Pro Val Lys  
 260 265 270  
 Val Cys Phe Thr Cys Asn Arg Ser Cys Arg Val Ala Pro Leu Ile Gln  
 275 280 285  
 Cys Asp Tyr Cys Pro Leu Leu Phe His Met Asp Cys Leu Glu Pro Pro  
 290 295 300  
 Leu Thr Ala Met Pro Leu Gly Arg Trp Met Cys Pro Asn His Ile Glu  
 305 310 315 320  
 His Val Val Leu Asn Gln Lys Asn Met Thr Leu Ser Asn Arg Cys Gln  
 325 330 335  
 Val Phe Asp Arg Phe Gln Asp Thr Val Ser Gln His Val Val Lys Val  
 340 345 350  
 Asp Phe Leu Asn Arg Ile His Lys Lys His Pro Pro Asn Arg Arg Val  
 355 360 365  
 Leu Gln Ser Val Lys Arg Arg Ser Leu Lys Val Pro Asp Ala Ile Lys  
 370 375 380  
 Ser Gln Tyr Gln Phe Pro Pro Leu Ile Ala Pro Ala Ala Ile Arg  
 385 390 395 400  
 Asp Gly Glu Leu Ile Cys Asn Gly Ile Pro Glu Glu Ser Gln Met His  
 405 410 415  
 Leu Leu Asn Ser Glu His Leu Ala Thr Gln Ala Glu Gln Gln Glu Trp  
 420 425 430  
 Leu Cys Ser Val Val Ala Leu Gln Cys Ser Ile Leu Lys His Leu Ser  
 435 440 445  
 Ala Lys Gln Met Pro Ser His Trp Asp Ser Glu Gln Thr Glu Lys Ala  
 450 455 460  
 Asp Ile Lys Pro Val Ile Val Thr Asp Ser Ser Val Thr Thr Ser Leu  
 465 470 475 480  
 Gln Thr Ala Asp Lys Thr Pro Thr Pro Ser His Tyr Pro Leu Ser Cys  
 485 490 495  
 Pro Ser Gly Ile Ser Thr Gln Asn  
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&lt;210&gt; 3691

&lt;211&gt; 418

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3691

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<210> 3692

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3692

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Ile	Gly	Leu	Cys	Arg	Tyr	Gly	Gly	Arg	Ile	Asp	Cys	Cys	Trp	Gly	Trp
		20						25					30		
Ala	Arg	Gln	Ser	Trp	Gly	Gln	Cys	Gln	Pro	Phe	Tyr	Val	Leu	Arg	Gln
		35					40					45			
Arg	Ile	Ala	Arg	Ile	Arg	Cys	Gln	Leu	Lys	Ala	Val	Cys	Gln	Pro	Arg
	50					55					60				
Cys	Lys	His	Gly	Glu	Cys	Ile	Gly	Pro	Asn	Lys	Cys	Lys	Cys	His	Pro
65					70				75					80	
Gly	Tyr	Ala	Gly	Lys	Thr	Cys	Asn	Gln	Gly	Arg	Lys	Thr	Val		
			85						90						

<210> 3693

<211> 2641

<212> DNA

<213> Homo sapiens

<400> 3693

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 180  
 acgacctccg agagcgacat ggacgagacc atcgacgtgg ggagcgagaa caattactcg  
 240  
 gggcaaagta ctagctctgt gattagattg aattctccaa caacaacatc tcagattatg  
 300  
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 360  
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 480  
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 660  
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 720





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<210> 3694

<211> 390

<212> PRT

<213> Homo sapiens

<400> 3694

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 35 40 45  
 Ala Val Phe Ala Gly Met Lys Arg Pro Cys Glu Glu Thr Thr Ser Glu  
 50 55 60  
 Ser Asp Met Asp Glu Thr Ile Asp Val Gly Ser Glu Asn Asn Tyr Ser  
 65 70 75 80  
 Gly Gln Ser Thr Ser Ser Val Ile Arg Leu Asn Ser Pro Thr Thr Thr  
 85 90 95  
 Ser Gln Ile Met Ala Arg Lys Lys Arg Arg Gly Ile Ile Glu Lys Arg  
 100 105 110  
 Arg Arg Asp Arg Ile Asn Asn Ser Leu Ser Glu Leu Arg Arg Leu Val  
 115 120 125  
 Pro Thr Ala Phe Glu Lys Gln Gly Ser Ala Lys Leu Glu Lys Ala Glu  
 130 135 140  
 Ile Leu Gln Met Thr Val Asp His Leu Lys Met Leu Gln Ala Thr Gly  
 145 150 155 160  
 Gly Lys Gly Tyr Phe Asp Ala His Ala Leu Ala Met Asp Phe Met Ser  
 165 170 175  
 Ile Gly Phe Arg Glu Cys Leu Thr Glu Val Ala Arg Tyr Leu Ser Ser  
 180 185 190  
 Val Glu Gly Leu Asp Ser Ser Asp Pro Leu Arg Val Arg Leu Val Ser  
 195 200 205  
 His Leu Ser Thr Cys Ala Thr Gln Arg Glu Ala Ala Ala Met Thr Ser  
 210 215 220  
 Ser Met Ala His His Xaa Ser Ser Ala Pro Pro Ala Ser Leu Gly Arg  
 225 230 235 240  
 Arg Leu Pro Pro Pro Ala Arg Ser Pro Ala Pro Ala Gln Arg Pro Pro  
 245 250 255  
 Cys Leu Arg Val Asn Pro Leu Ser Pro Leu His Asn Phe Arg Ser Ala  
 260 265 270  
 Ser Ala His Gly Ser Ala Leu Leu Thr Ala Thr Phe Ala His Ala Asp

275	280	285
Ser Ala Leu Arg Met Pro Ser Thr Gly Ser Val Ala Pro Cys Val Pro		
290	295	300
Pro Leu Ser Thr Ser Leu Leu Ser Leu Ser Ala Thr Val His Ala Ala		
305	310	315
Ala Ala Ala Ala Thr Ala Ala Ala His Ser Phe Pro Leu Ser Phe Ala		
	325	330
Gly Ala Phe Pro Met Leu Pro Pro Asn Ala Ala Ala Val Ala Ala		
	340	345
Ala Thr Ala Ile Ser Pro Pro Leu Ser Val Ser Ala Thr Ser Ser Pro		
	355	360
Gln Gln Thr Ser Ser Gly Thr Asn Asn Lys Pro Tyr Arg Pro Trp Gly		
	370	375
Thr Glu Val Gly Ala Phe		380
385	390	

&lt;210&gt; 3695

&lt;211&gt; 1615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3695

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960

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&lt;210&gt; 3696

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3696

Met	Val	Ile	Thr	Ile	Tyr	Tyr	Asp	Val	Lys	Val	Arg	Phe	Ile	Val	Arg
1				5					10					15	
Gly	Cys	Gly	Gln	Tyr	Ile	Ser	Tyr	Arg	Cys	Gln	Glu	Lys	Arg	Asn	Thr
			20					25						30	
Tyr	Phe	Ala	Glu	Tyr	Trp	Tyr	Gln	Ala	Gln	Cys	Cys	Gln	Tyr	Asp	Tyr
		35					40					45			
Cys	Asn	Ser	Trp	Ser	Ser	Pro	Gln	Leu	Gln	Ser	Ser	Leu	Pro	Glu	Pro
		50				55					60				
His	Asp	Arg	Pro	Leu	Ala	Leu	Pro	Leu	Ser	Asp	Ser	Gln	Ile	Gln	Trp
65				70						75				80	
Phe	Tyr	Gln	Ala	Leu	Asn	Leu	Ser	Leu	Pro	Leu	Pro	Asn	Phe	His	Ala
		85							90				95		
Gly	Thr	Glu	Pro	Asp	Gly	Leu	Asp	Pro	Met	Val	Thr	Leu	Ser	Leu	Asn
		100					105					110			
Leu	Gly	Leu	Ser	Phe	Ala	Glu	Leu	Arg	Arg	Met	Tyr	Leu	Phe	Leu	Asn
		115					120					125			
Ser	Ser	Gly	Leu	Leu	Val	Leu	Pro	Gln	Ala	Gly	Leu	Leu	Thr	Pro	His
		130				135					140				
Pro	Ser														
145															

&lt;210&gt; 3697

&lt;211&gt; 550

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3697

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&lt;210&gt; 3698

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3698

Xaa	Ala	Ala	Glu	Phe	Asp	Gly	Arg	Trp	Pro	Arg	Gln	Ile	Val	Ser	Ser
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Ala	Arg	Gln	Ser	Trp	Gly	Gln	Cys	Gln	Pro	Val	Cys	Gln	Pro	Arg	Cys
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Lys	His	Gly	Glu	Cys	Ile	Gly	Pro	Asn	Lys	Cys	Lys	Cys	His	Pro	Gly
	50					55				60					
Tyr	Ala	Gly	Lys	Thr	Cys	Asn	Gln	Asp	Leu	Asn	Glu	Cys	Gly	Leu	Lys
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Pro	Arg	Pro	Cys	Lys	His	Arg	Cys	Met	Asn	Thr	Tyr	Gly	Ser	Tyr	Lys
			85					90					95		
Cys	Tyr	Cys	Leu	Asn	Gly	Tyr	Met	Leu	Met	Pro	Asp	Gly	Ser	Cys	Ser
		100					105					110			
Ser	Ala	Leu	Thr	Cys	Ser	Met	Ala	Asn	Cys	Gln	Tyr	Gly	Cys	Asp	Val
	115					120					125				
Val	Lys	Gly	Gln	Ile	Arg	Cys	Gln	Cys	Pro	Ser	Pro	Gly	Leu	Gln	Leu
	130				135					140					
Ala	Pro	Asp	Gly	Arg	Thr	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Thr	Gly
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Arg	Ala	Ser	Cys	Pro	Lys	Phe	Arg	Gln	Cys	Val	Asn	Thr	Phe	Gly	Ser
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<210> 3699  
 <211> 510  
 <212> DNA  
 <213> Homo sapiens

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<210> 3700  
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 <212> PRT  
 <213> Homo sapiens

<400> 3700  
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 65 70 75 80  
 Gly His Cys Leu Phe Tyr Tyr Lys Asp Ser Arg Glu Glu Ser Val Leu  
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 <212> DNA  
 <213> Homo sapiens

<400> 3701

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&lt;210&gt; 3702

&lt;211&gt; 236

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3702

Val	Cys	Ser	Leu	Trp	Ser	Val	Gln	Arg	His	Ile	Ile	Ile	His	Ser	Gly
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			20					25					30		
Ser	Asn	Leu	Lys	Glu	His	Lys	Lys	Thr	His	Thr	Ala	Asp	Lys	Val	Phe
		35					40					45			
Thr	Cys	Asp	Glu	Cys	Gly	Lys	Ser	Phe	Asn	Met	Gln	Arg	Lys	Leu	Val
	50					55					60				
Lys	His	Arg	Ile	Arg	His	Thr	Gly	Glu	Arg	Pro	Tyr	Ser	Cys	Ser	Ala
65					70					75				80	
Cys	Gly	Lys	Cys	Phe	Gly	Gly	Ser	Gly	Asp	Leu	Arg	Arg	His	Val	Arg
				85					90				95		
Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Glu	Ile	Cys	Asn	Lys	Cys
			100					105					110		
Phe	Thr	Arg	Ser	Ala	Val	Leu	Arg	Arg	His	Lys	Lys	Met	His	Cys	Lys
	115					120						125			
Ala	Gly	Asp	Glu	Ser	Pro	Asp	Val	Leu	Glu	Glu	Leu	Ser	Gln	Ala	Ile
	130					135					140				
Glu	Thr	Ser	Asp	Leu	Glu	Lys	Ser	Gln	Ser	Ser	Asp	Ser	Phe	Ser	Gln
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Asp	Thr	Ser	Val	Thr	Leu	Met	Pro	Val	Ser	Val	Lys	Leu	Pro	Val	His

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Pro	Val	Glu	Asn	Ser	Val	Ala	Glu	Phe	Asp	Ser	His	Ser	Gly	Gly	Ser		
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Tyr	Cys	Lys	Leu	Arg	Ser	Met	Ile	Gln	Pro	His	Gly	Val	Ser	Asp	Gln		
195										200					205		
Glu	Lys	Leu	Ser	Leu	Asp	Pro	Gly	Lys	Leu	Ala	Lys	Pro	Gln	Ile	His		
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<210> 3703

<211> 3294

<212> DNA

<213> Homo sapiens

<400> 3703

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<210> 3704

<211> 619

<212> PRT

<213> Homo sapiens

<400> 3704

Met	Val	Met	Ser	Phe	Arg	Val	Ser	Glu	Leu	Gln	Val	Leu	Leu	Gly	Phe
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Ala	Gly	Arg	Asn	Lys	Ser	Gly	Arg	Lys	His	Glu	Leu	Leu	Ala	Lys	Ala
			20					25					30		
Leu	His	Leu	Leu	Lys	Ser	Ser	Cys	Ala	Pro	Ser	Val	Gln	Met	Lys	Ile
		35					40					45			
Lys	Glu	Leu	Tyr	Arg	Arg	Arg	Phe	Pro	Arg	Lys	Thr	Leu	Gly	Pro	Ser
	50					55					60				
Asp	Leu	Ser	Leu	Leu	Ser	Leu	Pro	Pro	Gly	Thr	Ser	Pro	Val	Gly	Ser
					70					75				80	
Pro	Gly	Pro	Leu	Ala	Pro	Ile	Pro	Pro	Thr	Leu	Leu	Ala	Pro	Gly	Thr
				85					90					95	
Leu	Leu	Gly	Pro	Lys	Arg	Glu	Val	Asp	Met	His	Pro	Pro	Leu	Pro	Gln
			100					105					110		
Pro	Val	His	Pro	Asp	Val	Thr	Met	Lys	Pro	Leu	Pro	Phe	Tyr	Glu	Val
		115					120					125			
Tyr	Gly	Glu	Leu	Ile	Arg	Pro	Thr	Thr	Leu	Ala	Ser	Thr	Ser	Ser	Gln
					135						140				
Arg	Phe	Glu	Glu	Ala	His	Phe	Thr	Phe	Ala	Leu	Thr	Pro	Gln	Gln	Val
					150					155				160	
Gln	Gln	Ile	Leu	Thr	Ser	Arg	Glu	Val	Leu	Pro	Gly	Ala	Lys	Cys	Asp
				165					170					175	
Tyr	Thr	Ile	Gln	Val	Gln	Leu	Arg	Phe	Cys	Leu	Cys	Glu	Thr	Ser	Cys
			180					185					190		
Pro	Gln	Glu	Asp	Tyr	Phe	Pro	Pro	Asn	Leu	Phe	Val	Lys	Val	Asn	Gly
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Lys	Leu	Cys	Pro	Leu	Pro	Gly	Tyr	Leu	Pro	Pro	Thr	Lys	Asn	Gly	Ala
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Glu	Pro	Lys	Arg	Pro	Ser	Arg	Pro	Ile	Asn	Ile	Thr	Pro	Leu	Ala	Arg

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Phe Gly Arg Asn Tyr Ser Leu Ser Val Tyr Leu Val Arg Gln Leu Thr						
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Ala Gly Thr Leu Leu Gln Lys Leu Arg Ala Lys Gly Ile Arg Asn Pro						
	275		280		285	
Asp His Ser Arg Ala Leu Ile Lys Glu Lys Leu Thr Ala Asp Pro Asp						
	290		295		300	
Ser Glu Val Ala Thr Thr Ser Leu Arg Val Ser Leu Met Cys Pro Leu						
305		310		315		320
Gly Lys Met Arg Leu Thr Val Pro Cys Arg Ala Leu Thr Cys Ala His						
	325		330		335	
Leu Gln Ser Phe Asp Ala Ala Leu Tyr Leu Gln Met Asn Glu Lys Lys						
	340		345		350	
Pro Thr Trp Thr Cys Pro Val Cys Asp Lys Lys Ala Pro Tyr Glu Ser						
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Leu Ile Ile Asp Gly Leu Phe Met Glu Ile Leu Ser Ser Cys Ser Asp						
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Cys Asp Glu Ile Gln Phe Met Glu Asp Gly Ser Trp Cys Pro Met Lys						
385		390		395		400
Pro Lys Lys Glu Ala Ser Glu Val Cys Pro Pro Gly Tyr Gly Leu						
	405		410		415	
Asp Gly Leu Gln Tyr Ser Pro Val Gln Gly Gly Asp Pro Ser Glu Asn						
	420		425		430	
Lys Lys Lys Val Glu Val Ile Asp Leu Thr Ile Glu Ser Ser Ser Asp						
	435		440		445	
Glu Glu Asp Leu Pro Pro Thr Lys Lys His Cys Ser Val Thr Ser Ala						
	450		455		460	
Ala Ile Pro Ala Leu Pro Gly Ser Lys Gly Val Leu Thr Ser Gly His						
465		470		475		480
Gln Pro Ser Ser Val Leu Arg Ser Pro Ala Met Gly Thr Leu Gly Gly						
	485		490		495	
Asp Phe Leu Ser Ser Leu Pro Leu His Glu Tyr Pro Pro Ala Phe Pro						
	500		505		510	
Leu Gly Ala Asp Ile Gln Gly Leu Asp Leu Phe Ser Phe Leu Gln Thr						
	515		520		525	
Glu Ser Gln His Tyr Gly Pro Ser Val Ile Thr Ser Leu Asp Glu Gln						
	530		535		540	
Asp Ala Leu Gly His Phe Phe Gln Tyr Arg Gly Thr Pro Ser His Phe						
545		550		555		560
Leu Gly Pro Leu Ala Pro Thr Leu Gly Ser Ser His Cys Ser Ala Thr						
	565		570		575	
Pro Ala Pro Pro Gly Arg Val Ser Ser Ile Val Ala Pro Gly Gly						
	580		585		590	
Ala Leu Arg Glu Gly His Gly Gly Pro Leu Pro Ser Gly Pro Ser Leu						
	595		600		605	
Thr Gly Cys Arg Ser Asp Ile Ile Ser Leu Asp						
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&lt;210&gt; 3705

&lt;211&gt; 1737

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3705

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<210> 3706

<211> 191

<212> PRT

<213> Homo sapiens

<400> 3706

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			20					25					30		
Ser	Arg	Gln	Gly	Gln	Gly	Thr	Glu	Ala	Gly	Met	Glu	Ala	Gly	Thr	Glu
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Ala	Gly	Thr	Glu	Ala	Gly	Arg	Val	Gly	Gly	Val	Thr	Val	Glu	Gln	Gly
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Lys	Ser	Leu	Ile	Asn	Tyr	Glu	Pro	His	Gly	Thr	Arg	Thr	Ala	Gly	Phe
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Thr	Ala	His	Pro	Pro	Lys	Ser	Thr	Ser	Val	Cys	Val	Cys	Xaa	Arg	Gln
			85					90						95	
His	Ile	Cys	Thr	Cys	Val	Cys	Met	Cys	Val	Arg	Lys	Cys	Val	Pro	Arg
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<211> 585

<212> DNA

<213> Homo sapiens

<400> 3707

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<211> 106

<212> PRT

<213> Homo sapiens

<400> 3708

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<400> 3709

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<212> PRT

<213> Homo sapiens

<400> 3712

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&lt;211&gt; 1719

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3713

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<212> PRT

<213> Homo sapiens

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His	Val	Thr	Asp	Ser	Glu	Asn	Asp	Glu	Pro	Leu	Asn	Leu	Asn	Ala	Ser
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Ser	Glu	Glu	Arg	Ala	Glu	Pro	Pro	Ala	Ser	Asp	Ser	Glu	Asn	Glu	Asp
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Val	Asn	Gln	His	Gly	Ser	Asp	Ser	Glu	Ser	Glu	Glu	Thr	Arg	Lys	Leu
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Pro	Gly	Ser	Asp	Ser	Glu	Asn	Glu	Glu	Leu	Leu	Asn	Gly	His	Ala	Ser
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Arg His Gln Ala Ser Asp Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg
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&lt;210&gt; 3715

&lt;211&gt; 288

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3715

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120

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cacttggaga aacatcgaaa ggacaaagcc cacaaacgct atctgctaata gagcattgac  
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<210> 3716

<211> 96

<212> PRT

<213> Homo sapiens

<400> 3716

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		20					25						30		
Gly	Lys	Ile	Arg	Ser	Tyr	Glu	Glu	His	Leu	Glu	Lys	His	Arg	Lys	Asp
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Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile	Asp	Gln	Arg	Lys	Lys
	50					55				60					
Met	Leu	Lys	Asn	Leu	Arg	Asn	Thr	Asn	Tyr	Asp	Val	Phe	Glu	Lys	Ile
65				70					75					80	
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<210> 3717

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<212> DNA

<213> Homo sapiens

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<210> 3718

<211> 374

<212> PRT

<213> Homo sapiens

<400> 3718

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Cys	Leu	Glu	Arg	Glu	Glu	Tyr	Leu	Leu	Phe	Asp	Ser	Asp	Lys	Leu	Ser
		35					40					45			
His	Leu	Ile	Leu	Asp	Ser	Ser	Ser	Lys	Ile	Cys	Asp	Leu	Asn	Ala	Asn
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Thr	Glu	Ser	Glu	Val	Pro	Gly	Gly	Gln	Ser	Val	Gly	Val	Gln	Gly	Glu
65				70					75					80	
Ala	Ala	Cys	Val	Ser	Ile	Pro	His	Leu	Asp	Leu	Lys	Asn	Val	Ser	Asp
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Gly	Asp	Lys	Trp	Glu	Glu	Pro	Phe	Pro	Ala	Phe	Lys	Ser	Trp	Gln	Glu
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Asp	Ser	Glu	Ser	Gly	Glu	Ala	Gln	Leu	Ser	Pro	Gln	Ala	Gly	Arg	Met
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Asn	His	His	Pro	Leu	Glu	Glu	Asp	Cys	Pro	Pro	Val	Leu	Ser	His	Arg

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 165 170 175  
 Ser Phe Ser Ser Lys Asp Glu Lys Arg Glu Asp Arg Thr Pro Tyr Gln  
 180 185 190  
 Leu Val Lys Lys Leu Gln Lys Lys Ile Arg Gln Phe Glu Glu Gln Phe  
 195 200 205  
 Glu Arg Glu Arg Asn Ser Lys Pro Ser Tyr Ser Asp Ile Ala Ala Asn  
 210 215 220  
 Pro Lys Val Leu Lys Trp Met Thr Glu Leu Thr Lys Leu Arg Lys Gln  
 225 230 235 240  
 Ile Lys Asp Ala Lys His Lys Asn Ser Asp Gly Glu Phe Val Pro Gln  
 245 250 255  
 Thr Arg Pro Arg Ser Asn Thr Leu Pro Lys Ser Phe Gly Ser Ser Leu  
 260 265 270  
 Asp His Glu Asp Glu Glu Asn Glu Asp Glu Pro Lys Val Ile Gln Lys  
 275 280 285  
 Glu Lys Lys Pro Ser Lys Glu Ala Thr Leu Glu Leu Ile Leu Lys Arg  
 290 295 300  
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 305 310 315 320  
 Met Thr Lys Asp His Leu Val Glu Glu Lys Ala Ser Leu Gln Lys Ser  
 325 330 335  
 Leu Leu Tyr Tyr Glu Ser Gln His Gly Arg Pro Val Thr Lys Glu Glu  
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 Arg His Ile Val Lys Pro Leu Tyr Asp Arg Tyr Arg Leu Val Lys Gln  
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&lt;210&gt; 3719

&lt;211&gt; 422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3719

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<210> 3720  
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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Val Cys Phe Asp Asp Phe Phe Pro Ile Ser Gln Val Arg Leu Trp Ala  
 50 55 60  
 Leu Gln Leu Ile Met Val Ser Thr Pro Ser Leu Val Val Leu His  
 65 70 75 80  
 Val Ala Tyr His Glu Gly Arg Glu Lys Arg His Arg Lys Lys Leu Tyr  
 85 90 95  
 Val Ser Pro Gly Thr Met Asp Gly Gly Leu Trp Tyr Ala Tyr Leu Ile  
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<210> 3721  
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 <212> DNA  
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 720



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&lt;210&gt; 3722

&lt;211&gt; 1216

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3722

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Glu	Arg	Lys	Lys	Arg	Leu	Gln	Leu	Tyr	Val	Phe	Val	Met	Arg	Cys	Ile
		20					25					30			
Ala	Tyr	Pro	Phe	Asn	Ala	Lys	Gln	Pro	Thr	Asp	Met	Ala	Arg	Arg	Gln
		35					40				45				
Gln	Lys	Ile	Ser	Lys	Gln	Gln	Leu	Gln	Thr	Val	Lys	Asp	Arg	Phe	Gln
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Ala	Phe	Leu	Asn	Gly	Glu	Thr	Gln	Ile	Met	Ala	Asp	Glu	Ala	Phe	Met
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Asn	Ala	Val	Gln	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val
			85					90					95		
Ala	Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Ser	Arg	Glu
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Val	Phe	Lys	Lys	His	Ile	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile
	115					120						125			
Asp	Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Met	Ala	Lys	Phe
	130					135					140				
Asp	Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Pro	Arg	Lys	Gln	Gln	Ala	Arg
	145				150				155					160	
Met	Thr	Ala	Ser	Ala	Ala	Ser	Glu	Leu	Ile	Leu	Ser	Lys	Glu	Gln	Leu

					165						170					175
Tyr	Glu	Met	Phe	Gln	Asn	Ile	Leu	Gly	Ile	Lys	Lys	Phe	Glu	His	Gln	
			180					185					190			
Leu	Leu	Tyr	Asn	Ala	Cys	Gln	Leu	Asp	Asn	Pro	Asp	Glu	Gln	Ala	Ala	
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Gln	Ile	Arg	Arg	Glu	Leu	Asp	Gly	Arg	Leu	Gln	Met	Ala	Asp	Gln	Ile	
	210					215					220					
Ala	Arg	Glu	Arg	Lys	Phe	Pro	Lys	Phe	Val	Ser	Lys	Glu	Met	Glu	Asn	
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Met	Tyr	Ile	Glu	Glu	Leu	Lys	Ser	Ser	Val	Asn	Leu	Leu	Met	Ala	Asn	
				245					250						255	
Leu	Glu	Ser	Met	Pro	Val	Ser	Lys	Gly	Gly	Glu	Phe	Lys	Leu	Gln	Lys	
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Leu	Lys	Arg	Ser	His	Asn	Ala	Ser	Ile	Ile	Asp	Met	Gly	Glu	Glu	Ser	
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Glu	Asn	Gln	Leu	Ser	Lys	Ser	Asp	Val	Val	Leu	Ser	Phe	Ser	Leu	Glu	
	290					295					300					
Val	Val	Ile	Met	Glu	Val	Gln	Gly	Leu	Lys	Ser	Leu	Ala	Pro	Asn	Arg	
305					310					315					320	
Ile	Val	Tyr	Cys	Thr	Met	Glu	Val	Glu	Gly	Gly	Glu	Lys	Leu	Gln	Thr	
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Asp	Gln	Ala	Glu	Ala	Ser	Lys	Pro	Thr	Trp	Gly	Thr	Gln	Gly	Asp	Phe	
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Ser	Thr	Thr	His	Ala	Leu	Pro	Ala	Val	Lys	Val	Lys	Leu	Phe	Thr	Glu	
	355					360						365				
Ser	Thr	Gly	Val	Leu	Ala	Leu	Glu	Asp	Lys	Glu	Leu	Gly	Arg	Val	Ile	
	370					375					380					
Leu	His	Pro	Thr	Pro	Asn	Ser	Pro	Lys	Gln	Ser	Glu	Trp	His	Lys	Met	
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Thr	Val	Ser	Lys	Asn	Cys	Pro	Asn	Gln	Asp	Leu	Lys	Ile	Lys	Leu	Ala	
			405						410						415	
Val	Arg	Met	Asp	Lys	Pro	Gln	Asn	Met	Lys	His	Ser	Gly	Tyr	Leu	Trp	
			420					425					430			
Ala	Ile	Gly	Lys	Asn	Val	Trp	Lys	Arg	Trp	Lys	Lys	Arg	Phe	Phe	Val	
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Leu	Val	Gln	Val	Ser	Gln	Tyr	Thr	Phe	Ala	Met	Cys	Ser	Tyr	Arg	Glu	
	450					455					460					
Lys	Lys	Ala	Glu	Pro	Gln	Glu	Leu	Leu	Gln	Leu	Asp	Gly	Tyr	Thr	Val	
465					470					475					480	
Asp	Tyr	Thr	Asp	Pro	Gln	Pro	Gly	Leu	Glu	Gly	Gly	Arg	Ala	Phe	Phe	
				485					490						495	
Asn	Ala	Val	Lys	Glu	Gly	Asp	Thr	Val	Ile	Phe	Ala	Ser	Asp	Asp	Glu	
			500					5								

595					600					605					
Gly	Trp	Phe	Ser	Pro	Gly	Gln	Val	Phe	Val	Leu	Asp	Glu	Tyr	Cys	Ala
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Arg	Asn	Gly	Val	Arg	Gly	Cys	His	Arg	His	Leu	Cys	Tyr	Leu	Arg	Asp
625					630					635					
Leu	Leu	Glu	Arg	Ala	Glu	Asn	Gly	Ala	Met	Ile	Asp	Pro	Thr	Leu	Leu
645					650					655					
His	Tyr	Ser	Phe	Ala	Phe	Cys	Ala	Ser	His	Val	His	Gly	Asn	Arg	Pro
660					665					670					
Asp	Gly	Ile	Gly	Thr	Val	Thr	Val	Glu	Glu	Lys	Glu	Arg	Phe	Glu	Glu
675					680					685					
Ile	Lys	Glu	Arg	Leu	Arg	Val	Leu	Leu	Glu	Asn	Gln	Ile	Thr	His	Phe
690					695					700					
Arg	Tyr	Cys	Phe	Pro	Phe	Gly	Arg	Pro	Glu	Gly	Ala	Leu	Lys	Ala	Thr
705					710					715					
Leu	Ser	Leu	Leu	Glu	Arg	Val	Leu	Met	Lys	Asp	Ile	Val	Thr	Pro	Val
725					730					735					
Pro	Gln	Glu	Glu	Val	Lys	Thr	Val	Ile	Arg	Lys	Cys	Leu	Glu	Gln	Ala
740					745					750					
Ala	Leu	Val	Asn	Tyr	Ser	Arg	Leu	Ser	Glu	Tyr	Ala	Lys	Ile	Glu	Glu
755					760					765					
Asn	Gln	Lys	Asp	Ala	Glu	Asn	Val	Gly	Arg	Leu	Ile	Thr	Pro	Ala	Lys
770					775					780					
Lys	Leu	Glu	Asp	Thr	Ile	Arg	Leu	Ala	Glu	Leu	Val	Ile	Glu	Val	Leu
785					790					795					
Gln	Gln	Asn	Glu	Glu	His	His	Ala	Glu	Pro	His	Val	Asp	Lys	Gly	Glu
805					810					815					
Ala	Phe	Ala	Trp	Ser	Asp	Leu	Met	Val	Glu	His	Ala	Glu	Thr	Phe	
820					825					830					
Leu	Ser	Leu	Phe	Ala	Val	Asp	Met	Asp	Ala	Ala	Leu	Glu	Val	Gln	Pro
835					840					845					
Pro	Asp	Thr	Trp	Asp	Ser	Phe	Pro	Leu	Phe	Gln	Leu	Leu	Asn	Asp	Phe
850					855					860					
Leu	Arg	Thr	Asp	Tyr	Asn	Leu	Cys	Asn	Gly	Lys	Phe	His	Lys	His	Leu
865					870					875					
Gln	Asp	Leu	Phe	Ala	Pro	Leu	Val	Val	Arg	Tyr	Val	Asp	Leu	Met	Glu
885					890					895					
Ser	Ser	Ile	Ala	Gln	Ser	Ile	His	Arg	Gly	Phe	Glu	Arg	Glu	Ser	Trp
900					905					910					
Glu	Pro	Val	Asn	Asn	Gly	Ser	Gly	Thr	Ser	Glu	Asp	Leu	Phe	Trp	Lys
915					920					925					
Leu	Asp	Ala	Leu	Gln	Thr	Phe	Ile	Arg	Asp	Leu	His	Trp	Pro	Glu	Glu
930					935					940					
Glu	Phe	Gly	Lys	His	Leu	Glu	Gln	Arg	Leu	Lys	Leu	Met	Ala	Ser	Asp
945					950					955					
Met	Ile	Glu	Ser	Cys	Val	Lys	Arg	Thr	Arg	Ile	Ala	Phe	Glu	Val	Lys
965					970					975					
Leu	Gln	Lys	Thr	Ser	Arg	Ser	Thr	Asp	Phe	Arg	Val	Pro	Gln	Ser	Ile
980					985					990					
Cys	Thr	Met	Phe	Asn	Val	Met	Val	Asp	Ala	Lys	Ala	Gln	Ser	Thr	Lys
995					1000					1005					
Leu	Cys	Ser	Met	Glu	Met	Gly	Gln	Glu	Phe	Ala	Lys	Met	Trp	His	Gln
1010					1015					1020					
Tyr	His	Ser	Lys	Ile	Asp	Glu	Leu	Ile	Glu	Glu	Thr	Val	Lys	Glu	Met

1025                      1030                      1035                      1040  
 Ile Thr Leu Leu Val Ala Lys Phe Val Thr Ile Leu Glu Gly Val Leu  
                                  1045                      1050                      1055  
 Ala Lys Leu Ser Arg Tyr Asp Glu Gly Thr Leu Phe Ser Ser Phe Leu  
                                  1060                      1065                      1070  
 Ser Phe Thr Val Lys Ala Ala Ser Lys Tyr Val Asp Val Pro Lys Pro  
                                  1075                      1080                      1085  
 Gly Met Asp Val Ala Asp Ala Tyr Val Thr Phe Val Arg His Ser Gln  
                                  1090                      1095                      1100  
 Asp Val Leu Arg Asp Lys Val Asn Glu Glu Met Tyr Ile Glu Arg Leu  
 1105                      1110                      1115                      1120  
 Phe Asp Gln Trp Tyr Asn Ser Ser Met Asn Val Ile Cys Thr Trp Leu  
                                  1125                      1130                      1135  
 Thr Asp Arg Met Asp Leu Gln Leu His Ile Tyr Gln Leu Lys Thr Leu  
                                  1140                      1145                      1150  
 Ile Arg Met Val Lys Lys Thr Tyr Arg Asp Phe Arg Leu Gln Gly Val  
                                  1155                      1160                      1165  
 Leu Asp Ser Thr Leu Asn Ser Lys Thr Tyr Glu Thr Ile Arg Asn Arg  
                                  1170                      1175                      1180  
 Leu Thr Val Glu Glu Ala Thr Ala Ser Val Ser Glu Gly Gly Gly Leu  
 1185                      1190                      1195                      1200  
 Gln Gly Ile Ser Met Lys Asp Ser Asp Glu Glu Asp Glu Glu Asp Asp  
                                  1205                      1210                      1215

&lt;210&gt; 3723

&lt;211&gt; 830

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3723

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 60  
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 120  
 aaccccaacg agaagctgaa ggtgaacttt gggaccccag agttcctgtc acctgaggtg  
 180  
 gtgaattatg accaaatctc cgataagaca gacatgtgga gtatgggggt gatcacctac  
 240  
 atgctgtctga gcggcctctc ccccttctctg ggagatgatg acacagagac cctaaacaac  
 300  
 gttctatctg gcaactggtg ctttgatgaa gagacctttg aggccgtatc agacgaggcc  
 360  
 aaagactttg tctccaacct catcgtcaag gaccagaggg cccggatgaa cgctgcccag  
 420  
 tgtctcgccc atccctggct caacaacctg gcggagaaag ccaaacgctg taaccgacgc  
 480  
 cttaagtccc agatcttctc taagaaatac ctcatgaaga ggcgctggaa gaaaaacttc  
 540  
 attgctgtca gcctgccaa ccgcttcaag aagatcagca gctcgggggc actgatggct  
 600  
 ctgggggtct gagccctggg cgagctgaa gcctggacgc agccacacag tggccggggc  
 660  
 tgaagccaca cagcccagaa ggccagaaaa ggcagccaga tccccagggc agcctcgtta  
 720

ggacaaggct gtgccaggct gggaggctcg gggctcccca cgcccccatg cagtgaccgc  
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 830

<210> 3724

<211> 203

<212> PRT

<213> Homo sapiens

<400> 3724

Ile Leu Leu Met His Lys Met Arg Val Leu His Leu Asp Leu Lys Pro  
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 20 25 30  
 Asp Phe Gly Leu Ala Arg Arg Tyr Asn Pro Asn Glu Lys Leu Lys Val  
 35 40 45  
 Asn Phe Gly Thr Pro Glu Phe Leu Ser Pro Glu Val Val Asn Tyr Asp  
 50 55 60  
 Gln Ile Ser Asp Lys Thr Asp Met Trp Ser Met Gly Val Ile Thr Tyr  
 65 70 75 80  
 Met Leu Leu Ser Gly Leu Ser Pro Phe Leu Gly Asp Asp Thr Glu  
 85 90 95  
 Thr Leu Asn Asn Val Leu Ser Gly Asn Trp Tyr Phe Asp Glu Glu Thr  
 100 105 110  
 Phe Glu Ala Val Ser Asp Glu Ala Lys Asp Phe Val Ser Asn Leu Ile  
 115 120 125  
 Val Lys Asp Gln Arg Ala Arg Met Asn Ala Ala Gln Cys Leu Ala His  
 130 135 140  
 Pro Trp Leu Asn Asn Leu Ala Glu Lys Ala Lys Arg Cys Asn Arg Arg  
 145 150 155 160  
 Leu Lys Ser Gln Ile Leu Leu Lys Lys Tyr Leu Met Lys Arg Arg Trp  
 165 170 175  
 Lys Lys Asn Phe Ile Ala Val Ser Ala Ala Asn Arg Phe Lys Lys Ile  
 180 185 190  
 Ser Ser Ser Gly Ala Leu Met Ala Leu Gly Val  
 195 200

<210> 3725

<211> 1244

<212> DNA

<213> Homo sapiens

<400> 3725

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 120  
 gaccatcttc acttttgttt tcaggccttt aaaattgtgc cctacaacac agagaccctt  
 180  
 gataaactgc taaccgaatc cctgaagaac aatatccctg caagcggact gcacctcttt  
 240  
 ggaatcaacc agctggaaga agaagatatg atgacaaatc agagggatga agagctgccc  
 300

accctgttgc attttgctgc gaagtatgga ctgaagaacc tcaactgcctt gttgctcacc  
 360  
 tgcccaggag ccctgcaggc gtacagcgtg gccacaagc atggccacta cccaacacc  
 420  
 atcgtgaga aacacggctt cagggacctg cggcagttca tcgacgagta tgtggaaacg  
 480  
 gtggacatgc tcaagagtca cattaagag gaactgatgc acggggagga ggctgatgct  
 540  
 gtgtacgagt ccatggccca cctttccaca gacctgctta tgaaatgctc gctcaacccc  
 600  
 ggctgtgacg aggatctcta tgagtccatg gctgcctttg tcccagctgc cactgaagac  
 660  
 ctctatgttg aaatgcttca ggccagtaca tctaaccxaa tccttgagga tggtttctct  
 720  
 cgggccacta aggactctat gatccgcaag tttttagaag gcaacagcat gggaatgacc  
 780  
 aatctggaga gagatcagtg ccattcttggc caggaagaag atgtttatca cacggtggat  
 840  
 gacgatgagg ccttttctgt ggacttgccc agcaggcccc ctgtcccagt gccagacca  
 900  
 gagaccactg ctcttggtgc tcaccagctg cctgacaacg aaccatacat ttttaaaggc  
 960  
 aagtatggca gggaatgatg tccaactggc tctttggagc ttctcaacag ggatttctct  
 1020  
 gatgacctgg ctttttgaac cattgctcag agactatccc cttctaaatg gtcttcaccc  
 1080  
 agccctacga gacagggttc atatcctggg gccagattct ggagctagaa taggagtaat  
 1140  
 gaccagagtc agtgctggcc ttcttggaag tatttacgca cagttgcaaa ggcaggtaaa  
 1200  
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 1244

&lt;210&gt; 3726

&lt;211&gt; 325

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3726

Xaa	Ile	His	Val	Ser	Gly	Lys	Asp	Ile	Thr	Arg	Lys	Pro	Glu	Ile	Ser
1				5				10					15		
Gly	His	Val	Ile	Ser	Ala	His	Gly	Leu	Ser	Val	Leu	Asn	Leu	Arg	Asp
			20				25					30			
Gly	Arg	Glu	Leu	Asp	Phe	Arg	Ser	Asp	His	Leu	His	Phe	Cys	Phe	Gln
		35				40				45					
Ala	Phe	Lys	Ile	Val	Pro	Tyr	Asn	Thr	Glu	Thr	Leu	Asp	Lys	Leu	Leu
	50				55				60						
Thr	Glu	Ser	Leu	Lys	Asn	Ile	Pro	Ala	Ser	Gly	Leu	His	Leu	Phe	
65				70				75				80			
Gly	Ile	Asn	Gln	Leu	Glu	Glu	Glu	Asp	Met	Met	Thr	Asn	Gln	Arg	Asp
			85				90				95				
Glu	Glu	Leu	Pro	Thr	Leu	Leu	His	Phe	Ala	Ala	Lys	Tyr	Gly	Leu	Lys
		100				105					110				
Asn	Leu	Thr	Ala	Leu	Leu	Leu	Thr	Cys	Pro	Gly	Ala	Leu	Gln	Ala	Tyr



115	120	125
Ser Val Ala Asn Lys His Gly His Tyr Pro Asn Thr Ile Ala Glu Lys		
130	135	140
His Gly Phe Arg Asp Leu Arg Gln Phe Ile Asp Glu Tyr Val Glu Thr		
145	150	155
Val Asp Met Leu Lys Ser His Ile Lys Glu Glu Leu Met His Gly Glu		
165	170	175
Glu Ala Asp Ala Val Tyr Glu Ser Met Ala His Leu Ser Thr Asp Leu		
180	185	190
Leu Met Lys Cys Ser Leu Asn Pro Gly Cys Asp Glu Asp Leu Tyr Glu		
195	200	205
Ser Met Ala Ala Phe Val Pro Ala Ala Thr Glu Asp Leu Tyr Val Glu		
210	215	220
Met Leu Gln Ala Ser Thr Ser Asn Pro Ile Pro Gly Asp Gly Phe Ser		
225	230	235
Arg Ala Thr Lys Asp Ser Met Ile Arg Lys Phe Leu Glu Gly Asn Ser		
245	250	255
Met Gly Met Thr Asn Leu Glu Arg Asp Gln Cys His Leu Gly Gln Glu		
260	265	270
Glu Asp Val Tyr His Thr Val Asp Asp Asp Glu Ala Phe Ser Val Asp		
275	280	285
Leu Ala Ser Arg Pro Pro Val Pro Val Pro Arg Pro Glu Thr Thr Ala		
290	295	300
Pro Gly Ala His Gln Leu Pro Asp Asn Glu Pro Tyr Ile Phe Lys Gly		
305	310	315
Lys Tyr Gly Arg Glu		
325		

&lt;210&gt; 3727

&lt;211&gt; 630

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3727

cggattcgag tcatcaagaa gaaaaagggtc attatgaaga agcgggaagaa gctaactcta  
 60  
 actcgcccca ccccaactggt gactgccggg ccccttgtga ccccaactcc agcagggacc  
 120  
 ctcgaccccg ctgagaaaca agaaacaggc tgtcctcctt tgggtctgga gtccctgcga  
 180  
 gtttcagata gccggcttga ggcattccagc agccagtcct ttgggtcttg accacaccga  
 240  
 ggacggctca acattcagtc aggcctggag gacggcgatc tatatgatgg agcctggtgt  
 300  
 gctgaggagc aggacgccga tccatggttt caggtggacg ctgggcaccc caccgcttc  
 360  
 tcgggtgtta tcacacaggg caggaactct gtctggaggt atgactgggt cacatcatac  
 420  
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 480  
 atggacgcag tatttctctgc caattcagac ccagaaactc cagtgcctgaa cctcctgccg  
 540  
 gagccccagg tggcccgtt cattcgctg ctgcccaga cctggctcca gggaggcgcg  
 600

ccttgccctcc gggcagagat cctggcctgc  
630

<210> 3728

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3728

Arg Ile Arg Val Ile Lys Lys Lys Lys Val Ile Met Lys Lys Arg Lys  
1 5 10 15  
Lys Leu Thr Leu Thr Arg Pro Thr Pro Leu Val Thr Ala Gly Pro Leu  
20 25 30  
Val Thr Pro Thr Pro Ala Gly Thr Leu Asp Pro Ala Glu Lys Gln Glu  
35 40 45  
Thr Gly Cys Pro Pro Leu Gly Leu Glu Ser Leu Arg Val Ser Asp Ser  
50 55 60  
Arg Leu Glu Ala Ser Ser Ser Gln Ser Phe Gly Leu Gly Pro His Arg  
65 70 75 80  
Gly Arg Leu Asn Ile Gln Ser Gly Leu Glu Asp Gly Asp Leu Tyr Asp  
85 90 95  
Gly Ala Trp Cys Ala Glu Glu Gln Asp Ala Asp Pro Trp Phe Gln Val  
100 105 110  
Asp Ala Gly His Pro Thr Arg Phe Ser Gly Val Ile Thr Gln Gly Arg  
115 120 125  
Asn Ser Val Trp Arg Tyr Asp Trp Val Thr Ser Tyr Lys Val Gln Phe  
130 135 140  
Ser Asn Asp Ser Arg Thr Trp Trp Gly Ser Arg Asn His Ser Ser Gly  
145 150 155 160  
Met Asp Ala Val Phe Pro Ala Asn Ser Asp Pro Glu Thr Pro Val Leu  
165 170 175  
Asn Leu Leu Pro Glu Pro Gln Val Ala Arg Phe Ile Arg Leu Leu Pro  
180 185 190  
Gln Thr Trp Leu Gln Gly Gly Ala Pro Cys Leu Arg Ala Glu Ile Leu  
195 200 205  
Ala Cys  
210

<210> 3729

<211> 1552

<212> DNA

<213> Homo sapiens

<400> 3729

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cctcctccgc gcctcgcggc atggagtaga aagggaaccgc ggaagcccgga aagcgaaggc  
120  
atcaagttat cagcagatgt caaaccattt gtccccagat ttgccgggct caatgtggca  
180  
tggttagagt cctcagaagc atgtgtcttc ccagctctg cagccacata ctatccgttt  
240  
gttcaggaac caccagtgc agagcagaaa atatatactg aagacatggc ctttggagct  
300

tcaacttttc cacctcagta tttatcttct gagataactc ttcattccata tgcctattct  
 360  
 ccttataccc ttgactccac acagaatggt tactcagtcg ctggctccca gtatctttat  
 420  
 aaccaaccca gttgttaccg aggttttcaa acagtgaagc atcgaaatga gaacacatgc  
 480  
 cctctccac aagaaatgaa agctctgttt aagaagaaaa cctatgatga gaaaaaacg  
 540  
 tatgatcagc aaaagtttga cagtgaaggg gctgatggaa ctatatcatc tgagataaaa  
 600  
 tcagctagag gttcacatca tttgtccatt tacgctgaga atagtttgaa atcagatggg  
 660  
 taccataagc gaacagacag gaaatccaga atcattgcaa aaaatgtatc tacctccaaa  
 720  
 cctgagtttg aatttaccac actggacttt cctgaactgc aagggtgcaga gaacaatatg  
 780  
 tcagagatac agaagcaacc caagtgggga cctgtccact ctgtctctac cgacatttct  
 840  
 cttctaagag aagtagtaaa accagctgca gtgttatcaa agggtgaaat agtggtgaaa  
 900  
 aataacccaa atgaatctgt aactgcta atgccctacca attctccttc atgtacaaga  
 960  
 gagttatctt ggacaccaat gggttatggt gttcgacaga cattatctac agaactgtca  
 1020  
 gcagccccca aaaatgttac ttctatgata aacttaaaga ccattgcttc atcagcagat  
 1080  
 cctaaaaatg ttagtatacc atcttctgaa gctttatctt cggatccttc ctacaacaaa  
 1140  
 gaaaaacaca ttattcatcc taccctaaag tctaaagcat cacaaggtag tgaccttgaa  
 1200  
 caaaatgaag cctcaagaaa gaataagaaa aagaaagaaa aatctacatc aaaatatgaa  
 1260  
 gtcctgacag ttcaagagcc tccaaggatt gaagatgccg aggaatttcc caacctggca  
 1320  
 gttgcatctg aaagaagaga cagaatagag acaccgaaat ttcaatctaa gcagcagcca  
 1380  
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 1440  
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 1500  
 ccagtggtag tctcagttgg agcagtgcca gtcctttcca aagaatgtgc ac  
 1552

&lt;210&gt; 3730

&lt;211&gt; 422

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3730

Met	Ala	Phe	Gly	Ala	Ser	Thr	Phe	Pro	Pro	Gln	Tyr	Leu	Ser	Ser	Glu
1				5				10					15		
Ile	Thr	Leu	His	Pro	Tyr	Ala	Tyr	Ser	Pro	Tyr	Thr	Leu	Asp	Ser	Thr
			20					25					30		
Gln	Asn	Val	Tyr	Ser	Val	Pro	Gly	Ser	Gln	Tyr	Leu	Tyr	Asn	Gln	Pro

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      35              40              45
Ser  Cys  Tyr  Arg  Gly  Phe  Gln  Thr  Val  Lys  His  Arg  Asn  Glu  Asn  Thr
 50              55              60
Cys  Pro  Leu  Pro  Gln  Glu  Met  Lys  Ala  Leu  Phe  Lys  Lys  Lys  Thr  Tyr
65              70              75              80
Asp  Glu  Lys  Lys  Thr  Tyr  Asp  Gln  Gln  Lys  Phe  Asp  Ser  Glu  Arg  Ala
      85              90              95
Asp  Gly  Thr  Ile  Ser  Ser  Glu  Ile  Lys  Ser  Ala  Arg  Gly  Ser  His  His
      100              105              110
Leu  Ser  Ile  Tyr  Ala  Glu  Asn  Ser  Leu  Lys  Ser  Asp  Gly  Tyr  His  Lys
      115              120              125
Arg  Thr  Asp  Arg  Lys  Ser  Arg  Ile  Ile  Ala  Lys  Asn  Val  Ser  Thr  Ser
      130              135              140
Lys  Pro  Glu  Phe  Glu  Phe  Thr  Thr  Leu  Asp  Phe  Pro  Glu  Leu  Gln  Gly
145              150              155              160
Ala  Glu  Asn  Asn  Met  Ser  Glu  Ile  Gln  Lys  Gln  Pro  Lys  Trp  Gly  Pro
      165              170              175
Val  His  Ser  Val  Ser  Thr  Asp  Ile  Ser  Leu  Leu  Arg  Glu  Val  Val  Lys
      180              185              190
Pro  Ala  Ala  Val  Leu  Ser  Lys  Gly  Glu  Ile  Val  Val  Lys  Asn  Asn  Pro
      195              200              205
Asn  Glu  Ser  Val  Thr  Ala  Asn  Ala  Ala  Thr  Asn  Ser  Pro  Ser  Cys  Thr
      210              215              220
Arg  Glu  Leu  Ser  Trp  Thr  Pro  Met  Gly  Tyr  Val  Val  Arg  Gln  Thr  Leu
225              230              235              240
Ser  Thr  Glu  Leu  Ser  Ala  Ala  Pro  Lys  Asn  Val  Thr  Ser  Met  Ile  Asn
      245              250              255
Leu  Lys  Thr  Ile  Ala  Ser  Ser  Ala  Asp  Pro  Lys  Asn  Val  Ser  Ile  Pro
      260              265              270
Ser  Ser  Glu  Ala  Leu  Ser  Ser  Asp  Pro  Ser  Tyr  Asn  Lys  Glu  Lys  His
      275              280              285
Ile  Ile  His  Pro  Thr  Gln  Lys  Ser  Lys  Ala  Ser  Gln  Gly  Ser  Asp  Leu
      290              295              300
Glu  Gln  Asn  Glu  Ala  Ser  Arg  Lys  Asn  Lys  Lys  Lys  Lys  Glu  Lys  Ser
305              310              315              320
Thr  Ser  Lys  Tyr  Glu  Val  Leu  Thr  Val  Gln  Glu  Pro  Pro  Arg  Ile  Glu
      325              330              335
Asp  Ala  Glu  Glu  Phe  Pro  Asn  Leu  Ala  Val  Ala  Ser  Glu  Arg  Arg  Asp
      340              345              350
Arg  Ile  Glu  Thr  Pro  Lys  Phe  Gln  Ser  Lys  Gln  Gln  Pro  Gln  Asp  Asn
      355              360              365
Phe  Lys  Asn  Asn  Val  Lys  Lys  Ser  Gln  Leu  Pro  Val  Gln  Leu  Asp  Leu
      370              375              380
Gly  Gly  Met  Leu  Thr  Ala  Leu  Glu  Lys  Lys  Gln  His  Ser  Gln  His  Ala
385              390              395              400
Lys  Gln  Ser  Ser  Lys  Pro  Val  Val  Val  Ser  Val  Gly  Ala  Val  Pro  Val
      405              410              415
Leu  Ser  Lys  Glu  Cys  Ala
      420

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&lt;210&gt; 3731

&lt;211&gt; 1704

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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120  
tgtgcagtgc tgcctccagc atcactgttc gtcaatagtc acccaggaat agaccggcct  
180  
ggcatgctct gcagtttccg gatccctggt gcctggctct gtgcctggtc cctgaatata  
240  
caagcaaata actgcttcag tacaggcttg tctcggcggg tcctgttgac caacgtgggt  
300  
acgggacacc ggcagtcctt tgggaccaac agtgatgtct tggcccagca gtttgccttc  
360  
atggctcctc tgctgtttta tggctgccgc tctggggaaa tctttgcat tgatctgcgt  
420  
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<210> 3732

<211> 281

<212> PRT

<213> Homo sapiens

<400> 3732

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			20					25					30		
Glu	Gly	Ile	Thr	Asp	Ala	Ser	Ser	Cys	Ala	Val	Leu	Leu	Pro	Ala	Ser
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Leu	Phe	Val	Asn	Ser	His	Pro	Gly	Ile	Asp	Arg	Pro	Gly	Met	Leu	Cys
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Ser	Phe	Arg	Ile	Pro	Gly	Ala	Trp	Ser	Cys	Ala	Trp	Ser	Leu	Asn	Ile
65					70					75				80	
Gln	Ala	Asn	Asn	Cys	Phe	Ser	Thr	Gly	Leu	Ser	Arg	Arg	Val	Leu	Leu
			85						90					95	
Thr	Asn	Val	Val	Thr	Gly	His	Arg	Gln	Ser	Phe	Gly	Thr	Asn	Ser	Asp
			100					105					110		
Val	Leu	Ala	Gln	Gln	Phe	Ala	Leu	Met	Ala	Pro	Leu	Leu	Phe	Asn	Gly
		115					120					125			
Cys	Arg	Ser	Gly	Glu	Ile	Phe	Ala	Ile	Asp	Leu	Arg	Cys	Gly	Asn	Gln
	130					135					140				
Gly	Lys	Gly	Trp	Lys	Ala	Thr	Arg	Leu	Phe	His	Asp	Ser	Ala	Val	Thr
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			165					170						175	
Ala	Gly	Lys	Ile	Lys	Leu	Trp	Asp	Leu	Arg	Thr	Thr	Lys	Cys	Val	Arg
		180					185						190		
Gln	Tyr	Glu	Gly	His	Val	Asn	Glu	Tyr	Ala	Tyr	Leu	Pro	Leu	His	Val
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His	Glu	Glu	Glu	Gly	Ile	Leu	Val	Ala	Val	Gly	Gln	Asp	Cys	Tyr	Thr
	210				215						220				
Arg	Ile	Trp	Ser	Leu	His	Asp	Ala	Arg	Leu	Leu	Arg	Thr	Ile	Pro	Ser
225				230						235				240	
Pro	Tyr	Pro	Ala	Ser	Lys	Ala	Asp	Ile	Pro	Ser	Val	Ala	Phe	Ser	Ser
			245					250					255		
Arg	Leu	Gly	Gly	Ser	Arg	Gly	Ala	Pro	Gly	Leu	Leu	Met	Ala	Val	Gly
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Gln	Asp	Leu	Tyr	Cys	Tyr	Ser	Tyr	Ser							
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<210> 3733

<211> 515

<212> DNA

<213> Homo sapiens

&lt;400&gt; 3733

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 120  
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 180  
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 300  
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 420  
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 480  
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 515

&lt;210&gt; 3734

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3734

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Val	Ser	Gly	Ser	Arg	Tyr	Arg	Arg	Gly	Arg	Arg	Arg	Gly	Arg	Leu	Lys
		20						25					30		
Gly	Lys	Asp	Pro	Gly	Ser	Ala	Pro	Ser	Ser	Val	Arg	Glu	Arg	Glu	Thr
		35					40				45				
Pro	Gly	Ala	Xaa	Pro	Cys	Leu	Pro	Arg	Arg	Gly	Trp	Cys	Val	Pro	Gly
	50				55					60					
Asp	Val	Arg	Ser	Ser	Pro	Leu	Pro	Gly	Trp	Cys	Ala	Leu	Ser	Asp	
65					70				75				80		
Val	Arg	Ser	Arg	Gly	Arg	Ser	Cys	Pro	Ser	Ala	Pro	Lys	Ala	Ala	Gly
			85					90					95		
Gly	Leu	Arg	Ala	Trp	Gly	Arg	Gly	Ser	Gly	Ala	Ala	Arg	Ala	Pro	Ala
			100				105						110		
Pro	Ala	Pro	Ser	Pro	Ser	Ser	Gly	Xaa	Ser	Pro	Ser	Ser	Arg	Thr	Pro
		115					120					125			
Arg	Asp	Trp	Ser	Ala	Ser	Arg	Cys	Trp	Thr	Trp	Ser	Gly	Ala	Ala	Thr
	130					135					140				
Ala	Pro	Thr	Pro	Phe	Ser	Pro	Ala	Gln	Gln	Pro	Pro	Ser	Ser	His	Asp
145				150					155					160	
Gly	Leu	Ser	Leu	Asp	Pro	Ser	Gln	Leu	Glu	Pro					
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&lt;210&gt; 3735

&lt;211&gt; 2512

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 3735  
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180  
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&lt;210&gt; 3736

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3736

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Ser	Gly	Arg	Pro	Ser	Ala	Thr	Gln	Lys	Lys	Lys	Met	Lys	Lys	Arg	Val
			20					25					30		
Lys	Asp	Glu	Leu	Arg	Lys	Leu	Asn	Thr	Met	Pro	Ala	Ala	Glu	Ala	Asn
		35					40					45			
Glu	Ile	Glu	Asp	Val	Trp	His	Leu	Asp	Leu	Ser	Ser	Arg	Trp	Gln	Leu
	50					55				60					
Tyr	Arg	Leu	Trp	Leu	Gln	Leu	Tyr	Gln	Ala	Asp	Thr	Pro	Pro	Gly	Lys
65					70				75					80	
Ile	Leu	Ser	Tyr	Glu	Arg	Gln	Tyr	Arg	Thr	Ser	Ala	Glu	Arg	Met	Ala
				85				90					95		
Glu	Leu	Arg	Leu	Gln	Glu	Asp	Leu	His	Ile	Leu	Lys	Asp	Ala	Gln	Val
			100					105					110		
Val	Gly	Met	Thr	Thr	Thr	Gly	Ala	Ala	Lys	Tyr	Arg	Gln	Ile	Leu	Gln

	115		120		125										
Lys	Val	Glu	Pro	Arg	Ile	Val	Ile	Val	Glu	Glu	Ala	Ala	Glu	Val	Leu
	130				135						140				
Glu	Ala	His	Thr	Ile	Ala	Thr	Leu	Ser	Lys	Ala					
145					150					155					

&lt;210&gt; 3737

&lt;211&gt; 1046

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3737

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1046

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&lt;210&gt; 3738

&lt;211&gt; 348

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3738

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Cys Val Cys Tyr Asn Glu Pro Lys Val Thr Thr Ser Cys Pro Gln Gln
 20          25          30
Gly Leu Gln Ala Val Pro Val Gly Ile Pro Ala Ala Ser Gln Arg Ile
 35          40          45
Phe Leu His Gly Asn Arg Ile Ser His Val Pro Ala Ala Ser Phe Arg
 50          55          60
Ala Cys Arg Asn Leu Thr Ile Leu Trp Leu His Ser Asn Val Leu Ala
 65          70          75          80
Arg Ile Asp Ala Ala Ala Phe Thr Gly Leu Ala Leu Leu Gly Ala Leu
 85          90          95
Asp Leu Ser Asp Asn Ala Gln Leu Arg Ser Val Asp Pro Ala Thr Phe
100          105          110
His Gly Leu Gly Arg Leu His Thr Leu His Leu Asp Arg Cys Gly Leu
115          120          125
Gln Glu Leu Gly Pro Gly Leu Phe Arg Gly Leu Ala Ala Leu Gln Tyr
130          135          140
Leu Tyr Leu Gln Asp Asn Ala Leu Gln Ala Leu Pro Asp Asp Thr Phe
145          150          155          160
Arg Asp Leu Gly Asn Leu Thr His Leu Phe Leu His Gly Asn Arg Ile
165          170          175
Ser Ser Val Pro Glu Arg Ala Phe Arg Gly Leu His Ser Leu Asp Arg
180          185          190
Leu Leu Leu His Gln Asn Arg Val Ala His Val His Pro His Ala Phe
195          200          205
Arg Asp Leu Gly Arg Leu Met Thr Leu Tyr Leu Phe Ala Asn Asn Leu
210          215          220
Ser Ala Leu Pro Thr Glu Ala Leu Ala Pro Leu Arg Ala Leu Gln Tyr
225          230          235          240
Leu Arg Leu Asn Asp Asn Pro Trp Val Cys Asp Cys Arg Ala Arg Pro
245          250          255
Leu Trp Ala Trp Leu Gln Lys Phe Arg Gly Ser Ser Ser Glu Val Pro
260          265          270
Cys Ser Leu Pro Gln Arg Leu Ala Gly Arg Asp Leu Lys Arg Leu Ala
275          280          285
Ala Asn Asp Leu Gln Gly Cys Ala Val Ala Thr Gly Pro Tyr His Pro
290          295          300
Ile Trp Thr Gly Arg Ala Thr Asp Glu Glu Pro Leu Gly Leu Pro Lys
305          310          315          320
Cys Cys Gln Pro Asp Ala Ala Asp Lys Ala Ser Val Leu Glu Pro Gly
325          330          335
Arg Pro Ala Ser Ala Gly Asn Ala Leu Lys Gly Arg
340          345

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&lt;210&gt; 3739

&lt;211&gt; 1252

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3739

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 360  
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 420  
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 720  
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&lt;210&gt; 3740

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3740

Met Gly Lys Phe Leu His Gln Gly Leu Gly Glu Ser Thr Gly Ser Pro  
 1 5 10 15  
 Gly Gln Trp Glu Ser Ala Ala Pro Pro Val Trp Arg Pro Arg Ala His  
 20 25 30  
 Ser Thr Glu Ala Pro Gly His Pro Gln Glu Asp Gly Lys Gly Gln Leu  
 35 40 45  
 Ala Gly Glu Ser Pro Gly His Arg Glu Pro Ser Pro Gly Ser Lys Gln

```

      50              55              60
Asp Leu Pro Ser Asp Cys Leu Arg Asn Ala Gly Trp Thr Ser Arg Asn
65              70              75              80
Phe Pro Phe Thr Gly Gln Pro Ala Ala Ala Pro Pro Arg Leu Gly Pro
      85              90              95
Ala Pro Gly Ala Ala Asp Arg Pro Ser Arg Val Pro Lys Ser Pro Ala
      100              105              110
Leu Ala Gln Lys Leu Gly Gln Pro Arg Asp Pro His Leu Pro Leu Pro
      115              120              125
Ile Ser Pro Leu Ser Gln Pro Pro Pro Ser Pro
      130              135

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&lt;210&gt; 3741

&lt;211&gt; 562

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3741

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cagacagcaa gcgacggccc agctcctcaa ggccacctcc gacctcggcg gggtagggca
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120
cggcagatcg gtgcctcctg aatcccaccc aaaattccca ctgggaatgt gttcctgaaa
180
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240
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540
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562

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&lt;210&gt; 3742

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3742

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Met Gly Trp Arg Asn Cys Phe Arg Leu Ala Pro Cys Cys Trp Lys Arg
1              5              10              15
Ala Glu Ala Ala Glu Met Asn Pro Val Cys Glu Arg Arg Ala Leu Ser
      20              25              30
Pro Ala Arg Ala Cys Ser Pro Arg Gly Trp Gly Leu Trp Ser Phe Gln
      35              40              45
Ser Cys Ser Leu Arg Ile Pro Ser Gln Gly His Phe Ala Leu Gly Ser
      50              55              60
Pro Ala Ser Leu Leu Ala Asp Cys Gly Arg Ile Arg Gly Ser Ile Leu

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Arg Thr Val Phe Val Phe  
130

<210> 3745  
<211> 345  
<212> DNA  
<213> Homo sapiens

<400> 3745  
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120  
ccgtgaacac gtctcccccg gccgtccct ggttccatgc gtgctcgtct tgggcaccac  
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240  
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345

<210> 3746  
<211> 102  
<212> PRT  
<213> Homo sapiens

<400> 3746  
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35 40 45  
Arg Thr Gln Pro Cys Ser Pro Arg Ser Cys Ser His Ser His Gly Ile  
50 55 60  
Ala Trp Ser Asp Ala Ala Ser Ala Pro Asp Ala Ser Arg Cys Arg Cys  
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Gln Ala Cys Gln Ala Lys Pro Arg Phe Ser Gly Ala Ala Gly Gly Gly  
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Arg His Val Trp Ala Asp  
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<210> 3747  
<211> 800  
<212> DNA  
<213> Homo sapiens

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&lt;210&gt; 3748

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3748

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		20						25					30		
Glu	Glu	Leu	Gly	Glu	Ala	Ala	Ala	Phe	Arg	Val	Glu	Arg	Thr	Asp	
		35				40					45				
Tyr	Arg	Ser	Ser	His	Val	Gly	Val	Arg	Ala	Thr	Arg	Cys	Gly	Pro	Leu
	50				55					60					
Leu	Cys	Gln	Ala	Ser	Asp	Ala	Arg	Gly	Ala	Val	Gly	Cys	Gly	Gly	Arg
65				70				75						80	
Arg	Asn	Thr	Arg	Gln	Gly	Pro	Arg	Ala	Gly	Gly	Gly	Thr	Ser	Leu	Gly
			85					90						95	
Leu	Cys	Pro	Phe	Pro	Asn	Phe	Leu	Phe	Ser	Gln	Ser	Phe	Leu	Ser	Pro
		100						105					110		
Lys	Lys	Ala	Ser	Leu	Glu	Lys	Ser	Leu	Cys	Pro	Ser	Asp	Leu	Ala	Leu
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Ser	Pro	Ala	Phe	Leu	Val	Glu	Leu	Gly	Ser						
		130					135								

&lt;210&gt; 3749

&lt;211&gt; 648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 3749

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 648

&lt;210&gt; 3750

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3750

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Trp	Ala	Ala	Ser	Pro	Gln	Gln	His	Glu	Trp	Pro	Pro	Leu	Leu	Gln	Leu
			20					25					30		
Arg	Pro	Glu	Asp	Val	Gly	Phe	Asp	Gly	Tyr	Ser	Met	Pro	Arg	Glu	Gly
		35					40				45				
Ser	Thr	Ser	Lys	Gln	Met	Pro	Pro	Ser	Asp	Ala	Glu	Gly	Asp	Pro	Leu
	50					55					60				
Met	Asn	Met	Leu	Met	Arg	Leu	Gln	Glu	Ala	Ala	Asn	Tyr	Ser	Ser	Pro
65					70				75					80	
Gln	Ser	Tyr	Asp	Ser	Asp	Ser	Asn	Ser	Asn	Ser	His	His	Asp	Asp	Ile
			85					90						95	
Leu	Asp	Ser	Ser	Leu	Glu	Ser	Thr	Leu							
			100					105							

&lt;210&gt; 3751

&lt;211&gt; 554

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3751

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 554

<210> 3752

<211> 66

<212> PRT

<213> Homo sapiens

<400> 3752

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Pro	His	His	Gly	Pro	Gly	Pro	Ala	Ala	Ala	Arg	Gly	Ser	Val	Ala	Pro
			20				25					30			
Ser	Gly	Ala	Lys	Gly	Val	Ser	Tyr	Thr	Gln	Gly	Gln	Ser	Pro	Glu	Pro
		35				40					45				
Arg	Thr	Arg	Glu	Val	Phe	Leu	Arg	Gly	Pro	Pro	Gly	Pro	Ala	Phe	
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<210> 3753

<211> 1426

<212> DNA

<213> Homo sapiens

<400> 3753

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&lt;210&gt; 3754

&lt;211&gt; 261

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3754

Met	Asp	Glu	Ala	Leu	Glu	Thr	Gln	Leu	Lys	Thr	Ser	Arg	Gly	Arg	Phe
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Ser	Ala	Thr	Glu	Ser	Leu	Pro	Thr	Leu	Glu	Leu	Leu	Ser	Gln	Val	Asp
			20						25				30		
Met	Asp	Cys	Arg	Val	His	Met	Arg	Pro	Ile	Gly	Leu	Thr	Trp	Val	Leu
		35					40					45			
Gln	Leu	Thr	Leu	Ala	Trp	Ile	Leu	Leu	Glu	Ala	Cys	Gly	Gly	Ser	Arg
	50					55					60				
Pro	Leu	Gln	Ala	Arg	Ser	Gln	Gln	His	His	Gly	Leu	Ala	Ala	Asp	Leu
65					70					75				80	
Gly	Lys	Gly	Lys	Leu	His	Leu	Ala	Gly	Pro	Cys	Cys	Pro	Ser	Glu	Met

										85			90			95		
Asp	Thr	Thr	Glu	Thr	Ser	Gly	Pro	Gly	Asn	His	Pro	Glu	Arg	Cys	Gly			
										100			105			110		
Val	Pro	Ser	Pro	Glu	Cys	Glu	Ser	Phe	Leu	Glu	His	Leu	Gln	Arg	Ala			
										115			120			125		
Leu	Arg	Ser	Arg	Phe	Arg	Leu	Arg	Leu	Leu	Gly	Val	Arg	Gln	Ala	Gln			
										130			135			140		
Pro	Leu	Cys	Glu	Glu	Leu	Cys	Gln	Ala	Trp	Phe	Ala	Asn	Cys	Glu	Asp			
										145			150			155		
Asp	Ile	Thr	Cys	Gly	Pro	Thr	Trp	Leu	Pro	Leu	Ser	Glu	Lys	Arg	Gly			
										165			170			175		
Cys	Glu	Pro	Ser	Cys	Leu	Thr	Tyr	Gly	Gln	Thr	Phe	Ala	Asp	Gly	Thr			
										180			185			190		
Asp	Leu	Cys	Arg	Ser	Ala	Leu	Gly	His	Ala	Leu	Pro	Val	Ala	Ala	Pro			
										195			200			205		
Gly	Ala	Arg	His	Cys	Phe	Asn	Ile	Ser	Ile	Ser	Ala	Val	Pro	Arg	Pro			
										210			215			220		
Arg	Pro	Gly	Arg	Arg	Gly	Arg	Glu	Ala	Pro	Ser	Arg	Arg	Ser	Arg	Ser			
										225			230			235		
Pro	Arg	Thr	Ser	Ile	Leu	Asp	Ala	Ala	Gly	Ser	Gly	Ser	Gly	Ser	Gly			
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<210> 3755

<211> 3149

<212> DNA

<213> Homo sapiens

<400> 3755

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180					
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240					
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300					
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360					
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420					
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480					
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660					
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720					

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&lt;210&gt; 3756

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3756

Met	Asn	Leu	Cys	Ser	Lys	Cys	Phe	Ala	Asp	Phe	Gln	Lys	Lys	Gln	Pro
1			5						10					15	
Asp	Asp	Asp	Ser	Ala	Pro	Ser	Thr	Ser	Asn	Ser	Gln	Ser	Asp	Leu	Phe
			20					25					30		
Ser	Glu	Glu	Thr	Thr	Ser	Asp	Asn	Asn	Asn	Thr	Ser	Ile	Thr	Thr	Pro
			35				40					45			
Thr	Leu	Ser	Pro	Ser	Gln	Gln	Pro	Leu	Pro	Thr	Glu	Leu	Asn	Val	Thr
			50			55					60				
Ser	Pro	Ser	Lys	Glu	Glu	Cys	Gly	Pro	Cys	Thr	Asp	Thr	Ala	His	Val
65					70					75				80	
Ser	Leu	Ile	Thr	Pro	Thr	Lys	Arg	Ser	Cys	Gly	Thr	Asp	Ser	Gln	Ser
			85					90						95	
Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu	Asn	Thr
			100				105						110		
Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg	Arg	Arg
			115				120					125			
Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu	Leu	Gly
			130			135					140				
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145		150		155		160									
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Ile	Met	Lys	Met	Val	Lys	Leu	Asp	Arg	Lys	Val	Gly	Arg	Ser	Cys	Gln
			180					185					190		
Arg	Ile	Gly	Glu	Gly	Cys	Ser									
			195												

&lt;210&gt; 3757

&lt;211&gt; 1046

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3757

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1046

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&lt;210&gt; 3758

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3758

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Ala Val Asp Leu Cys Gly Arg Leu Leu Thr Ala His Gly Gln Gly Tyr
      20           25           30
Gly Lys Ser Gly Leu Leu Thr Ser His Thr Thr Asp Ser Leu Gln Leu
      35           40           45
Trp Phe Val Arg Leu Ala Leu Leu Val Lys Leu Gly Leu Phe Gln Asn
      50           55           60
Ala Glu Met Glu Phe Glu Pro Phe Gly Asn Leu Asp Gln Pro Asp Leu
      65           70           75           80
Tyr Ser Glu Tyr Tyr Pro His Val Tyr Pro Gly Arg Arg Gly Ser Met
      85           90           95
Val Pro Phe Ser Met Arg Ile Leu His Ala Glu Leu Gln Gln Tyr Leu
      100          105          110
Gly Asn Pro Gln Glu Ser Leu Asp Arg Leu His Lys Val Lys Thr Val
      115          120          125
Cys Ser Lys Val Gly Gly Ala Val Ile Leu Pro Cys His Gly Glu Asn
      130          135          140
Met Pro Ser Thr Pro Ser Pro Gln Asp Met Pro Val Leu Phe Pro Ala
      145          150          155          160
Arg Pro Ala Pro Cys Thr Ile Ala Ala Ser Ala Phe Arg Arg Leu Gly
      165          170          175
Asp Pro Gly Leu Cys Gly Leu Val Val Ala Leu Ala Glu Ile Phe
      180          185          190
Phe Arg Asp Gly Lys Ser Phe
      195

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&lt;210&gt; 3759

&lt;211&gt; 830

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3759

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180
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300
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360
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420
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480
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540

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 660  
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 720  
 gcccaggaaa cccagggtgaa agctctttta acaaaggtea atgatctgag aaaagaaagt  
 780  
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 830

<210> 3760

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3760

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			20					25					30		
Cys	Asp	Arg	Glu	Leu	Tyr	Pro	Gly	Glu	Pro	Arg	Leu	His	Leu	Ser	Ala
		35					40					45			
Pro	Gly	Pro	Ala	Ser	His	Gln	Asp	Gln	Pro	Glu	Trp	Gln	Glu	Asp	Met
	50					55				60					
Gly	Arg	Thr	Gly	Gly	Gly	Gly	Cys	Gly	His	Pro	Ser	Phe	Asn	Gln	Met
65					70				75					80	
Leu	Asp	Val	Lys	Gly	Pro	Ile	Pro	Val	Lys	Arg	Gly	Gly	Gln	Ala	Leu
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Phe	Val	Leu	Leu												
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<210> 3761

<211> 458

<212> DNA

<213> Homo sapiens

<400> 3761

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 aagggaggcc gcccggccgc agcgggaggt ggcccccgga gacaccccg cgcctcgagg  
 180  
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 300  
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 360  
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 458

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 <213> Homo sapiens

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 Gly Gly Gly Pro Pro Gly His Pro Gly Ala Pro Arg Arg Gly Thr Pro  
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 Glu Pro Arg Ser Leu Leu Ala Gly Pro Glu Val  
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<210> 3763  
 <211> 1340  
 <212> DNA  
 <213> Homo sapiens

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 660  
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 720  
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 780  
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 840  
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 960  
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 1080  
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 1340

&lt;210&gt; 3764

&lt;211&gt; 288

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3764

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			20					25					30		
Ser	Pro	Arg	Cys	Ala	Ala	Thr	Met	Ala	Ser	Ser	Asp	Glu	Asp	Gly	Thr
		35					40					45			
Asn	Gly	Gly	Ala	Ser	Glu	Ala	Gly	Glu	Asp	Arg	Glu	Ala	Pro	Gly	Lys
	50				55					60					
Arg	Arg	Arg	Leu	Gly	Phe	Leu	Ala	Thr	Ala	Trp	Leu	Thr	Phe	Tyr	Asp
65					70					75				80	
Ile	Ala	Met	Thr	Ala	Gly	Trp	Leu	Val	Leu	Ala	Ile	Ala	Met	Val	Arg
			85					90						95	
Phe	Tyr	Met	Glu	Lys	Gly	Thr	His	Arg	Gly	Leu	Tyr	Lys	Ser	Ile	Gln
		100						105					110		
Lys	Thr	Leu	Lys	Phe	Phe	Gln	Thr	Phe	Ala	Leu	Leu	Glu	Ile	Val	His
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Cys	Leu	Ile	Gly	Ile	Val	Pro	Thr	Ser	Val	Ile	Val	Thr	Gly	Val	Gln
	130					135						140			
Val	Ser	Ser	Arg	Ile	Phe	Met	Val	Trp	Leu	Ile	Thr	His	Ser	Ile	Lys
145				150						155				160	
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			165						170					175	
Val	Thr	Glu	Ile	Thr	Arg	Tyr	Ser	Phe	Tyr	Thr	Phe	Ser	Leu	Leu	Asp
		180						185					190		
His	Leu	Pro	Tyr	Phe	Ile	Lys	Trp	Ala	Arg	Tyr	Asn	Phe	Phe	Ile	Ile
		195					200					205			
Leu	Tyr	Pro	Val	Gly	Val	Ala	Gly	Glu	Leu	Leu	Thr	Ile	Tyr	Ala	Ala
	210					215					220				
Leu	Pro	Tyr	Val	Lys	Lys	Thr	Gly	Met	Phe	Ser	Ile	Arg	Leu	Pro	Asn
225					230					235				240	
Lys	Tyr	Asn	Val	Ser	Phe	Asp	Tyr	Tyr	Tyr	Phe	Leu	Leu	Ile	Thr	Met

				245					250					255		
Ala	Ser	Tyr	Ile	Pro	Leu	Phe	Pro	Gln	Leu	Tyr	Phe	His	Met	Leu	Arg	
			260					265					270			
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<210> 3765
<211> 2764
<212> DNA
<213> Homo sapiens
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120
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180
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240
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1260

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&lt;210&gt; 3766

&lt;211&gt; 464

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3766

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Ser Gln Arg Ser Arg Arg Pro Ala Glu Pro Gly Arg Gly Ile Pro Asp
 20           25           30
Arg Arg Arg Arg Gly Pro Ile Gly Arg Val Asn Met Asp Leu Glu Asn
 35           40           45
Lys Val Lys Lys Met Gly Leu Gly His Glu Gln Gly Phe Gly Ala Pro
 50           55           60
Cys Leu Lys Cys Lys Glu Lys Cys Glu Gly Phe Glu Leu His Phe Trp
 65           70           75           80
Arg Lys Ile Cys Arg Asn Cys Lys Cys Gly Gln Glu Glu His Asp Val
 85           90           95
Leu Leu Ser Asn Glu Glu Asp Arg Lys Val Gly Lys Leu Phe Glu Asp
 100          105          110
Thr Lys Tyr Thr Thr Leu Ile Ala Lys Leu Lys Ser Asp Gly Ile Pro
 115          120          125
Met Tyr Lys Arg Asn Val Met Ile Leu Thr Asn Pro Val Ala Ala Lys
 130          135          140
Lys Asn Val Ser Ile Asn Thr Val Thr Tyr Glu Trp Ala Pro Pro Val
 145          150          155          160
Gln Asn Gln Ala Leu Ala Arg Gln Tyr Met Gln Met Leu Pro Lys Glu
 165          170          175
Lys Gln Pro Val Ala Gly Ser Glu Gly Ala Gln Tyr Arg Lys Lys Gln
 180          185          190
Leu Ala Lys Gln Leu Pro Ala His Asp Gln Asp Pro Ser Lys Cys His
 195          200          205
Glu Leu Ser Pro Arg Glu Val Lys Glu Met Glu Gln Phe Val Lys Lys
 210          215          220
Tyr Lys Ser Glu Ala Leu Gly Val Gly Asp Val Lys Leu Pro Cys Glu
 225          230          235          240
Met Asp Ala Gln Gly Pro Lys Gln Met Asn Ile Pro Gly Gly Asp Arg
 245          250          255
Ser Thr Pro Ala Ala Val Gly Ala Met Glu Asp Lys Ser Ala Glu His
 260          265          270
Lys Arg Thr Gln Tyr Ser Cys Tyr Cys Cys Lys Leu Ser Met Lys Glu
 275          280          285
Gly Asp Pro Ala Ile Tyr Ala Glu Arg Ala Gly Tyr Asp Lys Leu Trp
 290          295          300
His Pro Ala Cys Phe Val Cys Ser Thr Cys His Glu Leu Leu Val Asp
 305          310          315          320
Met Ile Tyr Phe Trp Lys Asn Glu Lys Leu Tyr Cys Gly Arg His Tyr
 325          330          335
Cys Asp Ser Glu Lys Pro Arg Cys Ala Gly Cys Asp Glu Leu Ile Phe
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Ser Asn Glu Tyr Thr Gln Ala Glu Asn Gln Asn Trp His Leu Lys His
 355          360          365
Phe Cys Cys Phe Asp Cys Asp Ser Ile Leu Ala Gly Glu Ile Tyr Val
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Met Val Asn Asp Lys Pro Val Cys Lys Pro Cys Tyr Val Lys Asn His

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Arg	Val	Thr	Tyr	Asn	Asn	Phe	Ser	Trp	His	Ala	Ser	Thr	Glu	Cys	Phe
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&lt;210&gt; 3767

&lt;211&gt; 2439

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3767

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&lt;210&gt; 3768

&lt;211&gt; 379

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3768

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1

5

10

15

Asn Ala Asp Ser Val Glu Gln Ser Phe Val Gly Leu Lys Gln Leu Ile



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Asn Leu Asp Gln Pro Asp Leu Tyr Tyr Glu Tyr Tyr Pro His Val Tyr
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Glu Ile Leu Arg Met Asp Pro Arg Asn Ala Val Ala Asn Asn Asn Ala
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Ala Val Cys Leu Leu Tyr Leu Gly Lys Leu Lys Asp Ser Leu Arg Gln
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&lt;210&gt; 3769

&lt;211&gt; 1931

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3769

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<210> 3770

<211> 447

<212> PRT

<213> Homo sapiens

<400> 3770

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Val	Lys	Thr	Asp	Trp	Asn	Glu	Glu	Cys	Lys	Ser	Pro	Lys	Lys	Gly	Arg
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Asn	Leu	His	Gly	Asn	Ser	Glu	Val	Asn	Leu	His	Gly	Cys	Arg	Asp	Leu
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Ser	Gly	Asp	Ser	Gly	Ser	Asp	Tyr	Leu	Phe	Pro	Glu	Ala	Ser	Glu	Glu
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Pro	Ser	Glu	Ser	Thr	Pro	Val	Ser	Cys	Tyr	Pro	Cys	Asn	Arg	Val	Lys
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Thr	Asp	Ser	Val	Asp	Leu	Lys	Ser	Pro	Phe	Gly	Ser	Pro	Ser	Ala	Glu

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 Ser Tyr Pro Arg Gln Lys Thr Pro Gly Thr Pro Lys Arg Asn Cys Pro  
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                     355                      360                      365  
 Pro Val Thr Ala Glu Phe Ser Ser Ser Val Ser Gly Cys Pro Lys Ser  
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 Ala Ser Tyr Ser Leu Glu Ser Thr Asp Val Lys Ser Leu Ala Ala Gly  
 385                      390                      395                      400  
 Val Thr Lys Gln Ser Thr Ser Cys Pro Ala Leu Pro Pro Arg Ala Pro  
                     405                      410                      415  
 Lys Leu Val Glu Glu Lys Val Ala Ser Glu Thr Ser Pro Leu Pro Leu  
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&lt;210&gt; 3771

&lt;211&gt; 1514

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3771

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&lt;210&gt; 3772

&lt;211&gt; 280

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3772

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Thr	Ser	Glu	Ile	Pro	Lys	Gln	Val	Lys	Val	Lys	Lys	Leu	Lys	Asn	Leu
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Gln	Lys	Arg	Pro	Ser	Glu	Ala	Gln	Ser	Val	Ile	Leu	Arg	Arg	Tyr	Phe
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Tyr	Arg	His	Phe	Leu	Lys	Ser	Pro	Asn	Phe	Asp	Gly	Trp	Phe	Lys	Thr

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Thr	His	Ile	Asp	Ala	Ile	Ile	Leu	Ala	Leu	Pro	Glu	Asp	Leu	Gln	Gly	
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<210> 3773

<211> 2664

<212> DNA

<213> Homo sapiens

<400> 3773

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<210> 3774

<211> 678

<212> PRT

<213> Homo sapiens

<400> 3774

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Glu	Arg	Gly	Ala	Ala	Ala	Thr	Pro	Gly	Gly	Leu	Pro	Ala	Pro	Cys	Ala
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Pro	Leu	Thr	Lys	Ser	Asp	Pro	Ser	Val	Ala	Leu	Leu	Gln	Gln	Ala	Gln
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His	Pro	Val	Phe	Ser	Lys	Val	Phe	Thr	Val	Asp	Tyr	Tyr	Phe	Glu	Glu
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Cys	Thr	Glu	Ser	Ser	His	Leu	Ala	Arg	Thr	Gly	Pro	Ser	Phe	Leu	Leu
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Arg	Tyr	Asp	Asp	Leu	Cys	Leu	Pro	Trp	Ala	Thr	Ala	Gly	Ala	Val	Arg
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Ser	Cys	Asp	Val	His	Arg	Pro	Leu	Lys	Phe	Leu	Val	Trp	Asp	Tyr	Asp
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Ser	Ser	Gly	Lys	His	Asp	Phe	Ile	Gly	Glu	Phe	Thr	Ser	Thr	Phe	Gln



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&lt;210&gt; 3775

&lt;211&gt; 549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3775

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<210> 3776

<211> 183

<212> PRT

<213> Homo sapiens

<400> 3776

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Asp	Gln	Ser	Lys	Tyr	Pro	Ile	Arg	Glu	Ser	Glu	Met	Arg	Glu	Tyr	Ile
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Val	Lys	Glu	Tyr	Arg	Asn	Gln	Phe	Pro	Glu	Ile	Leu	Arg	Arg	Ala	Ala
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Ala	His	Leu	Glu	Cys	Ile	Phe	Arg	Phe	Glu	Leu	Arg	Glu	Leu	Asp	Pro
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<210> 3777

<211> 4915

<212> DNA

<213> Homo sapiens

<400> 3777

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<210> 3778  
 <211> 1049  
 <212> PRT  
 <213> Homo sapiens

<400> 3778

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Ser Gln Pro Gly Pro Ser Ser Pro Ile Ser Leu Ser Ala Glu Glu Glu
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Thr Glu Lys Thr Glu Asp Ser Ser Val Pro Glu Thr Pro Asp Asn Glu
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Arg Lys Ala Ser Ile Ser Tyr Phe Lys Asn Gln Arg Gly Ile Gln Tyr
100          105          110
Ile Asp Leu Ser Ser Asp Ser Glu Asp Val Val Ser Pro Asn Cys Ser
115          120          125
Asn Thr Val Gln Glu Lys Thr Phe Asn Lys Asp Thr Val Ile Ile Val
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Ser Glu Pro Ser Glu Asp Glu Glu Ser Gln Gly Leu Pro Thr Met Ala
145          150          155          160
Arg Arg Asn Asp Asp Ile Ser Glu Leu Glu Asp Leu Ser Glu Leu Glu
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Gln Glu Ser Ile Val Leu Lys Leu Gln Lys Glu Phe Pro Asn Phe Asp
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Lys Gln Glu Leu Arg Glu Val Leu Lys Glu His Glu Trp Met Tyr Thr
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&lt;210&gt; 3779

&lt;211&gt; 1853

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3779

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&lt;210&gt; 3780

&lt;211&gt; 530

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3780

His Arg Glu Lys Glu Asp Ile Lys Ile Thr Lys Glu Arg Thr Pro Glu

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20	25	30	
Asn Gly Asp Ile Asn Tyr Asp Tyr Val His Glu Leu Ser Leu Glu Met			
35	40	45	
Lys Arg Gln Lys Ile Gln Arg Glu Leu Met Lys Leu Glu Gln Glu Asn			
50	55	60	
Met Glu Lys Arg Glu Glu Ile Ile Ile Lys Lys Glu Val Ser Pro Glu			
65	70	75	80
Val Val Arg Ser Lys Leu Ser Pro Ser Pro Ser Leu Arg Lys Ser Ser			
85	90	95	
Lys Ser Pro Lys Arg Lys Ser Ser Pro Lys Ser Ser Ser Ala Ser Lys			
100	105	110	
Lys Asp Arg Lys Thr Ser Ala Val Ser Ser Pro Leu Leu Asp Gln Gln			
115	120	125	
Arg Asn Ser Lys Thr Asn Gln Ser Lys Lys Lys Gly Pro Arg Thr Pro			
130	135	140	
Ser Pro Pro Pro Pro Ile Pro Glu Asp Ile Ala Leu Gly Lys Lys Tyr			
145	150	155	160
Lys Glu Lys Tyr Lys Val Lys Asp Arg Ile Glu Glu Lys Thr Arg Asp			
165	170	175	
Gly Lys Asp Arg Gly Arg Asp Phe Glu Arg Gln Arg Glu Lys Arg Asp			
180	185	190	
Lys Pro Arg Ser Thr Ser Pro Ala Gly Gln His His Ser Pro Ile Ser			
195	200	205	
Ser Arg His His Ser Ser Ser Gln Ser Gly Ser Ser Ile Gln Arg			
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His Ser Pro Ser Pro Arg Arg Lys Arg Thr Pro Ser Pro Ser Tyr Gln			
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Asp Arg Glu Lys Asp Ser Arg Glu Glu Arg Glu Tyr Glu Gln Asp Gln			
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Ser Ser Ser Arg Asp His Arg Asp Asp Arg Glu Pro Arg Asp Gly Arg			
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Asp Arg Arg Asp Ala Arg Asp Thr Arg Asp Arg Arg Glu Leu Arg Asp			
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Thr Lys Glu Ser Arg Asp Pro Arg Asp Ser Arg Ser Thr Arg Asp Ala			
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His Asp Tyr Arg Asp Arg Glu Gly Arg Asp Thr His Arg Lys Glu Asp			
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Thr Tyr Pro Glu Glu Ser Arg Ser Tyr Gly Arg Asn His Leu Arg Glu			
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 Ser Tyr Pro Glu Arg Asp Arg Tyr Pro Glu Arg Asp Asn Arg Asp Gln  
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 Ala Arg Asp Ser Ser Phe Glu Arg Arg His Gly Glu Arg Asp Arg Arg  
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 Lys Glu  
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&lt;210&gt; 3781

&lt;211&gt; 1364

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3781

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<210> 3782

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3782

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			20				25					30			
Asp	Leu	Gln	Asp	Ser	Ser	Glu	Leu	His	Pro	Glu	Phe	Ala	Lys	Cys	His
		35				40					45				
Val	Pro	Trp	Thr	Pro	Arg	Phe	Ala	Tyr	Gly	Val	Phe	Tyr	Ala	Asp	Pro
	50				55				60						
Cys	Thr	Gly	Gly	Asp	Ser	Tyr	His	Pro	His	Glu	Gln	Ser	Ser	Pro	Pro
65				70				75						80	
Ile	Phe	Ser	Lys	Gln	Ser	Trp	Ala	Leu	Thr	Pro	Leu	Glu	Arg	Gly	Arg
			85				90						95		
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<210> 3783

<211> 4137

<212> DNA

<213> Homo sapiens

<400> 3783

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<210> 3784

<211> 804

<212> PRT

<213> Homo sapiens

<400> 3784

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Leu	Leu	Glu	Arg	Val	Glu	Glu	Pro	Val	Leu	Gln	Asn	Gln	Ile	Arg	Glu
		35					40					45			
His	Val	Ile	Ala	Ile	Glu	Asp	Ala	Phe	Val	Asn	Ser	Gln	Glu	Trp	Thr
	50				55					60					
Leu	Ser	Arg	Ser	Val	Pro	Glu	Leu	Lys	Val	Gly	Ile	Val	Gly	Asn	Leu
65				70					75					80	
Ala	Ser	Gly	Lys	Ser	Ala	Leu	Val	His	Arg	Tyr	Leu	Thr	Gly	Thr	Tyr
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Val	Gln	Glu	Glu	Ser	Pro	Glu	Gly	Gly	Arg	Phe	Lys	Lys	Glu	Ile	Val
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Pro	Glu	Ala	Gln	Phe	Ala	Met	Trp	Val	Asp	Ala	Val	Ile	Phe	Val	Phe
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Trp Tyr Gly Val Asp Val Thr Ala Arg Asp Ala His Gly Asn Thr Ala		
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&lt;210&gt; 3785

&lt;211&gt; 1901

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3785

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 1440  
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 1500  
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 1560  
 cccacacgct gctcccgagg ctggctgtcc tggcatccac cccagagcct gtcattggtgc  
 1620  
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 1680  
 aggcgacttc agccctgtgc ctggagccct gcaggctctc gggcagtgga gggccccggc  
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 1800  
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&lt;210&gt; 3786

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3786

Met	Thr	Gly	Ser	Gly	Val	Asp	Ala	Arg	Thr	Ala	Ser	Ser	Gly	Ser	Ser
1				5					10					15	
Val	Trp	Glu	Gly	Gln	Leu	Gln	Ser	Leu	Val	Leu	Ser	Glu	Tyr	Ala	Ser
			20					25					30		
Thr	Glu	Met	Ser	Leu	His	Ala	Leu	Tyr	Met	His	Gln	Leu	His	Lys	Gln
		35					40					45			
Gln	Ala	Gln	Ala	Glu	Pro	Glu	Arg	His	Val	Trp	His	Arg	Arg	Glu	Ser
	50					55				60					
Asp	Glu	Ser	Gly	Glu	Ser	Ala	Pro	Asp	Glu	Gly	Gly	Glu	Gly	Ala	Arg
65					70				75					80	
Ala	Pro	Gln	Ser	Ile	Pro	Arg	Ser	Ala	Ser	Tyr	Pro	Cys	Ala	Ala	Pro
			85					90					95		
Arg	Pro	Gly	Ala	Pro	Glu	Thr	Thr	Ala	Leu	His	Gly	Gly	Phe	Gln	Arg

```

          100          105          110
Arg Tyr Gly Gly Ile Thr Asp Pro Gly Thr Val Pro Arg Val Pro Ser
          115          120          125
His Phe Ser Arg Leu Pro Leu Gly Gly Trp Ala Glu Asp Gly Gln Ser
          130          135          140
Ala Ser Arg His Pro Glu Pro Val Pro Glu Glu Gly Ser Glu Asp Glu
145          150          155          160
Leu Pro Pro Gln Val His Lys Val
          165

```

&lt;210&gt; 3787

&lt;211&gt; 717

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3787

```

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480
cccgggggtg ctgcacgtga gccgtggcgt agcttaatcg acgcgcacaa ggattccgtg
540
tattcagtgt ttattgaggc tgtgttttga agcatgccat tgataggttg aacataacat
600
ttttcttaga ataaaagcac attccataca ctctactgtg gcagaataag gaggttcaca
660
gataattgag agaagctacc gaaacgtgct gttttctgaa ggtctccctt cagcgt
717

```

&lt;210&gt; 3788

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3788

```

Met Leu Gln Asn Thr Ala Ser Ile Asn Thr Glu Tyr Thr Glu Ser Leu
 1          5          10          15
Cys Ala Ser Ile Lys Leu Arg His Gly Ser Arg Ala Ala Pro Pro Gly
          20          25          30
Pro Trp Gly Ala Lys Cys Ser Trp Arg Gln Val Ala Lys Gly Glu His
          35          40          45
Leu Gly Gln Thr Pro Gly Phe Ser Ser Arg Leu Pro His Leu Pro Ala

```

50		55		60	
Ser	Leu	Leu	Ser	Trp	Leu
65		70		75	
Ala	Ala	Val	Ile	Thr	His
		85		90	
Ala	Val	Leu	Val	His	Met
		100		105	
Leu					

&lt;210&gt; 3789

&lt;211&gt; 4341

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3789

```

ngaattcatt ttcaaaggag gcgaactacc tgtgccctaa ccttgaagc tggagaaaag
60
ttactgtctca caactgacct gaaaactaaa gagtctgtgg gtaggagaat cagtcaactt
120
caggacagct ggaaagacat ggagccccag ctggcagaga tgattaagca gttccagagc
180
actgtagaga cctgggacca gtgtgaaaag aaaatcaagg agttgaaaag caggctgcaa
240
gttttaaagg cacaaagtga agatcctctt ccagagcttc acgaggacct ccataacgaa
300
aaagagctga ttaaggaact agaacagtct ttggctagct ggactcagaa cttgaaagaa
360
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aaggagcaaa tagagcattt gcacagacaa tgggaggacc tctgcttaag ggtggccata
480
cgtaaacagg agattgaaga cagactcaat acatgggttg tattcaatga aaaaaataaa
540
gagttgtgtg cctggctggt gcagatggaa aacaaagttc tacagacagt ggacattagt
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720
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960
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1080
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1140

```

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1740  
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acctcctgca ctccgggctt ggaagatgaa aaggaggcct ctgagaatga aacagacatg  
1860  
gaagacccca gagaaatcca gactgattct tggcgtaaac ggggagagag cgaggaaccg  
1920  
tcattctctc agtcctctgtg tcattctagt gccccagggc acgagcggtc tggctgcgag  
1980  
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2040  
tctctctctc acgaagagga cgaggagggc ccatactaca gcgcactgtc aggtaaatcc  
2100  
atttcggatg gccactcgtg gcatgttccc gacagccctt cctgtcccg gcatcactac  
2160  
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2220  
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2280  
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4341

&lt;210&gt; 3790

&lt;211&gt; 1092

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3790

```

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Glu Thr Trp Asp Gln Cys Glu Lys Lys Ile Lys Glu Leu Lys Ser Arg
      20              25              30
Leu Gln Val Leu Lys Ala Gln Ser Glu Asp Pro Leu Pro Glu Leu His
      35              40              45
Glu Asp Leu His Asn Glu Lys Glu Leu Ile Lys Glu Leu Glu Gln Ser
      50              55              60
Leu Ala Ser Trp Thr Gln Asn Leu Lys Glu Leu Gln Thr Met Lys Ala
      65              70              75              80
Asp Leu Thr Arg His Val Leu Val Glu Asp Val Met Val Leu Lys Glu
      85              90              95
Gln Ile Glu His Leu His Arg Gln Trp Glu Asp Leu Cys Leu Arg Val
      100             105             110
Ala Ile Arg Lys Gln Glu Ile Glu Asp Arg Leu Asn Thr Trp Val Val
      115             120             125
Phe Asn Glu Lys Asn Lys Glu Leu Cys Ala Trp Leu Val Gln Met Glu
      130             135             140
Asn Lys Val Leu Gln Thr Val Asp Ile Ser Ile Glu Glu Met Ile Glu
      145             150             155             160
Lys Leu Gln Lys Asp Cys Met Glu Glu Ile Asn Leu Phe Ser Glu Asn
      165             170             175
Lys Leu Gln Leu Lys Gln Met Gly Asp Gln Leu Ile Lys Ala Ser Asn
      180             185             190
Lys Ser Arg Ala Ala Glu Ile Asp Asp Lys Leu Asn Lys Ile Asn Asp
      195             200             205
Arg Trp Gln His Leu Phe Asp Val Ile Gly Ser Arg Val Lys Lys Leu
      210             215             220
Lys Glu Thr Phe Ala Phe Ile Gln Gln Leu Asp Lys Asn Met Ser Asn
      225             230             235             240
Leu Arg Thr Trp Leu Ala Arg Ile Glu Ser Glu Leu Ser Lys Pro Val
      245             250             255
Val Tyr Asp Val Cys Asp Asp Gln Glu Ile Gln Lys Arg Leu Ala Glu
      260             265             270
Gln Gln Asp Leu Gln Arg Asp Ile Glu Gln His Ser Ala Gly Val Glu
      275             280             285
Ser Val Phe Asn Ile Cys Asp Val Leu Leu His Asp Ser Asp Ala Cys
      290             295             300
Ala Asn Glu Thr Glu Cys Asp Ser Ile Gln Gln Thr Thr Arg Ser Leu
      305             310             315             320
Asp Arg Arg Trp Arg Asn Ile Cys Ala Met Ser Met Glu Arg Arg Met
      325             330             335
Lys Ile Glu Glu Thr Trp Arg Leu Trp Gln Lys Phe Leu Asp Asp Tyr
      340             345             350
Ser Arg Phe Glu Asp Trp Leu Lys Ser Ala Glu Arg Thr Ala Ala Cys
      355             360             365
Pro Asn Ser Ser Glu Val Leu Tyr Thr Ser Ala Lys Glu Glu Leu Lys

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370	375	380
Arg Phe Glu Ala Phe Gln Arg Gln Ile His Glu Arg Leu Thr Gln Leu		
385	390	395
Glu Leu Ile Asn Lys Gln Tyr Arg Arg Leu Ala Arg Glu Asn Arg Thr		400
	405	410
Asp Thr Ala Ser Arg Leu Lys Gln Met Val His Glu Gly Asn Gln Arg		415
	420	425
Trp Asp Asn Leu Gln Arg Arg Val Thr Ala Val Leu Arg Arg Leu Arg		430
	435	440
His Phe Thr Asn Gln Arg Glu Glu Phe Glu Gly Thr Arg Glu Ser Ile		445
	450	455
Leu Val Trp Leu Thr Glu Met Asp Leu Gln Leu Thr Asn Val Glu His		460
465	470	475
Phe Ser Glu Ser Asp Ala Asp Asp Lys Met Arg Gln Leu Asn Gly Phe		480
	485	490
Gln Gln Glu Ile Thr Leu Asn Thr Asn Lys Ile Asp Gln Leu Ile Val		495
	500	505
Phe Gly Glu Gln Leu Ile Gln Lys Ser Glu Pro Leu Asp Ala Val Leu		510
	515	520
Ile Glu Asp Glu Leu Glu Glu Leu His Arg Tyr Cys Gln Glu Val Phe		525
	530	535
Gly Arg Val Ser Arg Phe His Arg Arg Leu Thr Ser Cys Thr Pro Gly		540
545	550	555
Leu Glu Asp Glu Lys Glu Ala Ser Glu Asn Glu Thr Asp Met Glu Asp		560
	565	570
Pro Arg Glu Ile Gln Thr Asp Ser Trp Arg Lys Arg Gly Glu Ser Glu		575
	580	585
Glu Pro Ser Ser Pro Gln Ser Leu Cys His Leu Val Ala Pro Gly His		590
	595	600
Glu Arg Ser Gly Cys Glu Thr Pro Val Ser Val Asp Ser Ile Pro Leu		605
	610	615
Glu Trp Asp His Thr Gly Asp Val Gly Gly Ser Ser Ser His Glu Glu		620
625	630	635
Asp Glu Glu Gly Pro Tyr Tyr Ser Ala Leu Ser Gly Lys Ser Ile Ser		640
	645	650
Asp Gly His Ser Trp His Val Pro Asp Ser Pro Ser Cys Pro Glu His		655
	660	665
His Tyr Lys Gln Met Glu Gly Asp Arg Asn Val Pro Pro Val Pro Pro		670
	675	680
Ala Ser Ser Thr Pro Tyr Lys Pro Pro Tyr Gly Lys Leu Leu Leu Pro		685
	690	695
Pro Gly Thr Asp Gly Gly Lys Glu Gly Pro Arg Val Leu Asn Gly Asn		700
705	710	715
Pro Gln Gln Glu Asp Gly Gly Leu Ala Gly Ile Thr Glu Gln Gln Ser		720
	725	730
Gly Ala Phe Asp Arg Trp Glu Met Ile Gln Ala Gln Glu Leu His Asn		735
	740	745
Lys Leu Lys Ile Lys Gln Asn Leu Gln Gln Leu Asn Ser Asp Ile Ser		750
	755	760
Ala Ile Thr Thr Trp Leu Lys Lys Thr Glu Ala Glu Leu Glu Met Leu		765
	770	775
Lys Met Ala Lys Pro Pro Ser Asp Ile Gln Glu Ile Glu Leu Arg Val		780
785	790	795
Lys Arg Leu Gln Glu Ile Leu Lys Ala Phe Asp Thr Tyr Lys Ala Leu		800



[illegible]

<210> 3791

<211> 1011

<212> DNA

<213> Homo sapiens

<400> 3791

```

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60
ctggcaacat  agtatctgtg  aaagtgtgga  gctcatcttg  ttccaacggg  tcagcatccc
120
tgaaccttct  ttaaacattt  agcctcttcc  tctctctgct  ttccccgagc  ttctcgttcc
180
tcttctctct  tccggcaagc  aacttctctc  ggtgactctg  ccctttgata  cattggaata
240
tctgtgcccc  gagacatagc  aattgctctc  atcatctggg  cctcttcaga  catgctgaga
300

```

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 540  
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 720  
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 780  
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 aatccctcag aacaggaac ttacctccc atggacagag cccagttgaa agtttcaaaa  
 900  
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 ctctcatcaa acagcattgg ggatgtgaaa ccaactgaac agatgaagaa t  
 1011

&lt;210&gt; 3792

&lt;211&gt; 288

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3792

Met	Leu	Phe	Asp	Glu	Arg	Lys	Tyr	Pro	Tyr	His	Leu	Met	Leu	Gln	Lys
1				5				10						15	
Phe	Leu	Cys	Ser	Gly	Gly	His	Asn	Ala	Leu	Phe	Glu	Thr	Phe	Asn	Trp
			20					25					30		
Ala	Leu	Ser	Met	Gly	Gly	Lys	Val	Pro	Val	Ser	Glu	Gly	Leu	Glu	His
			35				40					45			
Ser	Asp	Leu	Pro	Asp	Gly	Thr	Gly	Glu	Phe	Leu	Asp	Ala	Trp	Leu	Met
	50				55					60					
Leu	Val	Glu	Lys	Met	Val	Asn	Pro	Thr	Thr	Val	Leu	Glu	Ser	Pro	His
65					70					75				80	
Ser	Leu	Pro	Ala	Lys	Leu	Pro	Gly	Gly	Val	Gln	Asn	Phe	Pro	Gln	Phe
			85					90						95	
Ser	Ala	Leu	Arg	Phe	Leu	Val	Val	Thr	Gln	Lys	Ala	Ala	Phe	Thr	Cys
		100						105					110		
Ile	Lys	Asn	Leu	Trp	Asn	Arg	Lys	Pro	Leu	Lys	Val	Tyr	Gly	Gly	Arg
	115					120						125			
Met	Ala	Glu	Ser	Met	Leu	Ala	Ile	Leu	Cys	His	Ile	Leu	Arg	Gly	Glu
	130				135					140					
Pro	Val	Ile	Arg	Glu	Arg	Leu	Ser	Lys	Glu	Lys	Glu	Gly	Ser	Arg	Gly
145				150					155					160	
Glu	Glu	Asp	Thr	Gly	Gln	Glu	Glu	Gly	Gly	Ser	Arg	Arg	Glu	Pro	Gln
			165					170					175		
Val	Asn	Gln	Gln	Gln	Leu	Gln	Gln	Leu	Met	Asp	Met	Gly	Phe	Thr	Arg



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3795

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240  
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420  
gagcttcgag gactggatga catcaaggac ttgaaggtgg gttcagtaga agaattccaa  
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1341

&lt;210&gt; 3796

&lt;211&gt; 294

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3796

```

Asn Cys Leu Tyr Lys Lys Gly Pro Asp Gly Tyr Asp Pro Gln Phe Ile
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Thr Lys Leu Leu Arg Asn Tyr Arg Ser His Pro Thr Ile Leu Asp Ile
      20           25           30
Pro Asn Gln Leu Tyr Tyr Glu Gly Glu Leu Gln Ala Cys Ala Asp Val
      35           40           45
Val Asp Arg Glu Arg Phe Cys Arg Trp Ala Gly Leu Pro Arg Gln Gly
      50           55           60
Phe Pro Ile Ile Phe His Gly Val Met Gly Lys Asp Glu Arg Glu Gly
      65           70           75           80
Asn Ser Pro Ser Phe Phe Asn Pro Glu Glu Ala Ala Thr Val Thr Ser
      85           90           95
Tyr Leu Lys Leu Leu Leu Ala Pro Ser Ser Lys Lys Gly Lys Ala Arg
      100          105          110
Leu Ser Pro Arg Ser Val Gly Val Ile Ser Pro Tyr Arg Lys Gln Val
      115          120          125
Glu Lys Ile Arg Tyr Cys Ile Thr Lys Leu Asp Arg Glu Leu Arg Gly
      130          135          140
Leu Asp Asp Ile Lys Asp Leu Lys Val Gly Ser Val Glu Glu Phe Gln
      145          150          155          160
Gly Gln Glu Arg Ser Val Ile Leu Ile Ser Thr Val Arg Ser Ser Gln
      165          170          175
Ser Phe Val Gln Leu Asp Leu Asp Phe Asn Leu Gly Phe Leu Lys Asn
      180          185          190
Pro Lys Arg Phe Asn Val Ala Val Thr Arg Ala Lys Ala Leu Leu Ile
      195          200          205
Ile Val Gly Asn Pro Leu Leu Leu Gly His Asp Pro Asp Trp Lys Val
      210          215          220
Phe Leu Glu Phe Cys Lys Glu Asn Gly Gly Tyr Thr Gly Cys Pro Phe
      225          230          235          240
Pro Ala Lys Leu Asp Leu Gln Gln Gly Gln Asn Leu Leu Gln Gly Leu
      245          250          255
Ser Lys Leu Ser Pro Ser Thr Ser Gly Pro His Ser His Asp Tyr Leu
      260          265          270
Pro Gln Glu Arg Glu Gly Glu Gly Gly Leu Ser Leu Gln Val Glu Pro
      275          280          285
Glu Trp Arg Asn Glu Leu
      290

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&lt;210&gt; 3797

&lt;211&gt; 1970

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3797

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ggggtgttcg tgcgctacga cttcgaggcc gacgccact ggtggtcaga gaggacgcac
 180

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300  
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360  
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 1920  
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 1970

<210> 3798

<211> 473

<212> PRT

<213> Homo sapiens

<400> 3798

Leu	Arg	Trp	Arg	Leu	Pro	Leu	Thr	Cys	Leu	Leu	Gln	Val	Ile	Met	
1				5				10					15		
Val	Ile	Leu	Phe	Gly	Val	Phe	Val	Arg	Tyr	Asp	Phe	Glu	Ala	Asp	Ala
			20					25					30		
His	Trp	Trp	Ser	Glu	Arg	Thr	His	Lys	Asn	Leu	Ser	Asp	Met	Glu	Asn
			35					40					45		
Glu	Phe	Tyr	Tyr	Arg	Tyr	Pro	Ser	Phe	Gln	Asp	Val	His	Val	Met	Val
			50					55					60		
Phe	Val	Gly	Phe	Gly	Phe	Leu	Met	Thr	Phe	Leu	Gln	Arg	Tyr	Gly	Phe
65					70					75					80
Ser	Ala	Val	Gly	Phe	Asn	Phe	Leu	Leu	Ala	Ala	Phe	Gly	Ile	Gln	Trp
					85					90					95
Ala	Leu	Leu	Met	Gln	Gly	Trp	Phe	His	Phe	Leu	Gln	Asp	Arg	Tyr	Ile
			100							105				110	
Val	Val	Gly	Val	Glu	Asn	Leu	Ile	Asn	Ala	Asp	Phe	Cys	Val	Ala	Ser
			115							120				125	
Val	Cys	Val	Ala	Phe	Gly	Ala	Val	Leu	Gly	Lys	Val	Ser	Pro	Ile	Gln
			130							135				140	
Leu	Leu	Ile	Met	Thr	Phe	Gln	Val	Thr	Leu	Phe	Ala	Val	Asn	Glu	
145					150					155				160	
Phe	Ile	Leu	Leu	Asn	Leu	Leu	Lys	Val	Lys	Asp	Ala	Gly	Gly	Ser	Met
					165					170				175	
Thr	Ile	His	Thr	Phe	Gly	Ala	Tyr	Phe	Gly	Leu	Thr	Val	Thr	Arg	Ile
			180							185				190	
Leu	Tyr	Arg	Arg	Asn	Leu	Glu	Gln	Ser	Lys	Glu	Arg	Gln	Asn	Ser	Val
			195							200				205	
Tyr	Gln	Ser	Asp	Leu	Phe	Ala	Met	Ile	Gly	Thr	Leu	Phe	Leu	Trp	Met
			210							215				220	
Tyr	Trp	Pro	Ser	Phe	Asn	Ser	Ala	Ile	Ser	Tyr	His	Gly	Asp	Ser	Gln
225					230					235				240	
His	Arg	Ala	Ala	Ile	Asn	Thr	Tyr	Cys	Ser	Leu	Ala	Ala	Cys	Val	Leu
					245					250				255	
Thr	Ser	Val	Ala	Ile	Ser	Ser	Ala	Leu	His	Lys	Lys	Gly	Lys	Leu	Asp
			260							265				270	
Met	Val	His	Ile	Gln	Asn	Ala	Thr	Leu	Ala	Gly	Gly	Val	Ala	Val	Gly
			275							280				285	
Thr	Ala	Ala	Glu	Met	Met	Leu	Met	Pro	Tyr	Gly	Ala	Leu	Ile	Ile	Gly
			290							295				300	
Phe	Val	Cys	Gly	Ile	Ile	Ser	Thr	Leu	Gly	Phe	Val	Tyr	Leu	Thr	Pro
305					310					315				320	
Phe	Leu	Glu	Ser	Arg	Leu	His	Ile	Gln	Asp	Thr	Cys	Gly	Ile	Asn	Asn

```

          325          330          335
Leu His Gly Ile Pro Gly Ile Ile Gly Gly Ile Val Gly Ala Val Thr
          340          345          350
Ala Ala Ser Ala Ser Leu Glu Val Tyr Gly Lys Glu Gly Leu Val His
          355          360          365
Ser Phe Asp Phe Gln Gly Phe Asn Gly Asp Trp Thr Ala Arg Thr Gln
          370          375          380
Gly Lys Phe Gln Ile Tyr Gly Leu Leu Val Thr Leu Ala Met Ala Leu
385          390          395          400
Met Gly Gly Ile Ile Val Gly Leu Ile Leu Arg Leu Pro Phe Trp Gly
          405          410          415
Gln Pro Ser Asp Glu Asn Cys Phe Glu Asp Ala Val Tyr Trp Glu Met
          420          425          430
Pro Glu Gly Asn Ser Thr Val Tyr Ile Pro Glu Asp Pro Thr Phe Lys
          435          440          445
Pro Ser Gly Pro Ser Val Pro Ser Val Pro Met Val Ser Pro Leu Pro
          450          455          460
Met Ala Ser Ser Val Pro Leu Val Pro
465          470

```

&lt;210&gt; 3799

&lt;211&gt; 210

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3799

```

tcgaggaact gctcggcctc cacatcccaa gctcacctt ctccctgcat cacagagaga
60
agcaagcaga aggcccgag gagacaaga tccagctcct ctcctcttc ttccagttct
120
tctagctcct cttcttctc ctcgtctctc tcctcttctt ccagtgatgg ccggaagaag
180
cgggggaagt acaaggacaa gaggaggaag
210

```

&lt;210&gt; 3800

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3800

```

Ser Arg Asn Cys Ser Ala Ser Thr Ser Gln Ala Ser Pro Ser Pro Cys
1          5          10          15
Ile Thr Glu Arg Ser Lys Gln Lys Ala Arg Arg Arg Thr Arg Ser Ser
          20          25          30
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
          35          40          45
Ser Ser Ser Ser Ser Ser Ser Asp Gly Arg Lys Lys Arg Gly Lys Tyr
          50          55          60
Lys Asp Lys Arg Arg Lys
65          70

```

&lt;210&gt; 3801

&lt;211&gt; 4070



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3801

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60  
gctggggccgc gggcagcgtc gcctcacgcg gagcagagct gagctgaagc gggaccocgga  
120  
gcccagagcag ccgccgccat ggcaatcaaa tttctggaag tcatcaagcc cttctgtgtc  
180  
atcctgccgg aaattcagaa gccagagagg aagattcagt ttaaggagaa agtgctgtgg  
240  
accgctatca ccctctttat cttcttagtg tgctgccaga ttccctgtt tgggatcatg  
300  
tcttcagatt cagctgaccc tttctattgg atgagagtga ttctagcctc taacagaggc  
360  
acattgatgg agctagggat ctctcctatt gtacgtctg gccttataat gcaactcttg  
420  
gctggcgcca agataattga agttgggtgac acccaaaaag accgagctct cttcaacgga  
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720  
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900  
gtcatctatt tccagggtct ccgagtggaac ctgccaatca agtcggcccc ctaccgtggc  
960  
cagtacaaca cctatcccat caagctcttc tatacgtcca acatcccat catcctgcag  
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 3960  
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 4070

&lt;210&gt; 3802

&lt;211&gt; 476

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3802

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 Pro Glu Ile Gln Lys Pro Glu Arg Lys Ile Gln Phe Lys Glu Lys Val  
 20 25 30  
 Leu Trp Thr Ala Ile Thr Leu Phe Ile Phe Leu Val Cys Cys Gln Ile  
 35 40 45  
 Pro Leu Phe Gly Ile Met Ser Ser Asp Ser Ala Asp Pro Phe Tyr Trp  
 50 55 60  
 Met Arg Val Ile Leu Ala Ser Asn Arg Gly Thr Leu Met Glu Leu Gly  
 65 70 75 80  
 Ile Ser Pro Ile Val Thr Ser Gly Leu Ile Met Gln Leu Leu Ala Gly  
 85 90 95  
 Ala Lys Ile Ile Glu Val Gly Asp Thr Pro Lys Asp Arg Ala Leu Phe  
 100 105 110  
 Asn Gly Ala Gln Lys Leu Phe Gly Met Ile Ile Thr Ile Gly Gln Ser

```

      115              120              125
Ile Val Tyr Val Met Thr Gly Met Tyr Gly Asp Pro Ser Glu Met Gly
      130              135              140
Ala Gly Ile Cys Leu Leu Ile Ile Ile Gln Leu Phe Val Ala Gly Leu
145              150              155              160
Ile Val Leu Leu Leu Asp Glu Leu Leu Gln Lys Gly Tyr Gly Leu Gly
      165              170              175
Ser Gly Ile Ser Leu Phe Ile Ala Thr Asn Ile Cys Glu Thr Ile Val
      180              185              190
Trp Lys Ala Phe Ser Pro Thr Thr Ile Asn Thr Gly Arg Gly Thr Glu
      195              200              205
Phe Glu Gly Ala Val Ile Ala Leu Phe His Leu Leu Ala Thr Arg Thr
210              215              220
Asp Lys Val Arg Ala Leu Arg Glu Ala Phe Tyr Arg Gln Asn Leu Pro
225              230              235              240
Asn Leu Met Asn Leu Ile Ala Thr Ile Phe Val Phe Ala Val Val Ile
      245              250              255
Tyr Phe Gln Gly Phe Arg Val Asp Leu Pro Ile Lys Ser Ala Arg Tyr
260              265              270
Arg Gly Gln Tyr Asn Thr Tyr Pro Ile Lys Leu Phe Tyr Thr Ser Asn
275              280              285
Ile Pro Ile Ile Leu Gln Ser Ala Leu Val Ser Asn Leu Tyr Val Ile
290              295              300
Ser Gln Met Leu Ser Ala Arg Phe Ser Gly Asn Phe Leu Val Asn Leu
305              310              315              320
Leu Gly Gln Trp Ser Asp Thr Ser Ser Gly Gly Pro Ala Arg Ala Tyr
      325              330              335
Pro Val Gly Gly Leu Cys Tyr Tyr Leu Ser Pro Pro Glu Ser Phe Gly
      340              345              350
Ser Val Leu Glu Asp Pro Val His Ala Val Val Tyr Ile Val Phe Met
355              360              365
Leu Gly Ser Cys Ala Phe Phe Ser Lys Thr Trp Ile Glu Val Ser Gly
370              375              380
Ser Ser Ala Lys Asp Val Ala Lys Gln Leu Lys Glu Gln Gln Met Val
385              390              395              400
Met Arg Gly His Arg Glu Thr Ser Met Val His Glu Leu Asn Arg Tyr
      405              410              415
Ile Pro Thr Ala Ala Ala Phe Gly Gly Leu Cys Ile Gly Ala Leu Ser
420              425              430
Val Leu Ala Asp Phe Leu Gly Ala Ile Gly Ser Gly Thr Gly Ile Leu
435              440              445
Leu Ala Val Thr Ile Ile Tyr Gln Tyr Phe Glu Ile Phe Val Lys Glu
450              455              460
Gln Ser Glu Val Gly Ser Met Gly Ala Leu Leu Phe
465              470              475

```

&lt;210&gt; 3803

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3803

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<210> 3804

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3804

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 50 55 60  
 Arg Met Ser His Ala Leu Glu Glu Ile Lys Lys Phe Leu Val Pro Asp  
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 Tyr Asn Asp Glu Ile Arg Gln Glu Gln Leu Arg Glu Leu Ser Tyr Leu  
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<210> 3805

<211> 1923

<212> DNA

<213> Homo sapiens

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&lt;210&gt; 3806

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 <212> PRT  
 <213> Homo sapiens

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 Ala Arg Gln Glu Pro Arg Leu Val Leu Ile Ser Leu Thr Cys Asp Gly  
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 Asp Thr Leu Thr Leu Ser Ala Ala Tyr Thr Lys Asp Leu Leu Leu Pro  
 65 70 75 80  
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 85 90 95  
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 180 185 190  
 Ala Glu Asp Ser Trp Asp Glu Leu Leu Ile Gly Asp Val Glu Leu Lys  
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 Arg Val Met Ala Cys Ser Arg Cys Ile Leu Thr Thr Val Asp Pro Asp  
 210 215 220  
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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Ser Tyr His Pro Ala Pro Ser Gly Arg Gly Ser Ala Pro Ser Pro Arg  
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&lt;210&gt; 3810

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3810

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			20					25					30		
Phe	Ser	Arg	Lys	Val	Gly	Arg	Pro	Pro	Thr	Pro	Ser	Arg	Arg	Val	Tyr
			35				40					45			
Arg	Gly	Thr	Arg	Thr	Arg	Pro	Ser	Thr	Ser	Ser	Pro	Trp	Ser	Leu	Ala
			50			55					60				
Arg	Val	Ala	Pro	Ala	Ser	Thr	Ala	Asn	Ser	Ser	Ser	Ser	Ser	Asp	Ala
						70				75				80	
Trp	His	Arg	Ser	Ala	Thr	Thr	Arg	Gly	Pro	Asp	Pro	Thr	Trp	Glu	Leu
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Arg

&lt;210&gt; 3811

&lt;211&gt; 296

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3811

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Thr Trp Gly Ala Cys Trp Gln His Cys Leu Asp Ser Arg Ala Ser Leu  
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&lt;210&gt; 3814

&lt;211&gt; 294

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3814

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Leu	His	Thr	Phe	Asp	Leu	Leu	Gly	Phe	Gly	Arg	Ser	Ser	Arg	Pro	Ala
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65				70				75					80		
Glu	Thr	Trp	Arg	Glu	Thr	Met	Gly	Ile	Pro	Ser	Met	Ile	Leu	Leu	Gly
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His	Ser	Leu	Gly	Gly	Phe	Leu	Ala	Thr	Ser	Tyr	Ser	Ile	Lys	Tyr	Pro
	100						105					110			
Asp	Arg	Val	Lys	His	Leu	Ile	Leu	Val	Asp	Pro	Trp	Gly	Phe	Pro	Leu
	115					120					125				
Arg	Pro	Thr	Asn	Pro	Ser	Glu	Ile	Arg	Ala	Pro	Pro	Ala	Trp	Val	Lys
	130					135					140				
Ala	Val	Ala	Ser	Val	Leu	Gly	Arg	Ser	Asn	Pro	Leu	Ala	Val	Leu	Arg
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Lys Ala Met Met Glu Ser Phe Gly Trp Ala Arg Arg Pro Met Leu Glu
      210      215      220
Arg Ile His Leu Ile Arg Lys Asp Val Pro Ile Thr Met Ile Tyr Gly
      225      230      235      240
Ser Asp Thr Trp Ile Asp Thr Ser Thr Gly Lys Lys Val Lys Met Gln
      245      250      255
Arg Pro Asp Ser Tyr Val Arg Asp Met Glu Ile Lys Gly Ala Ser His
      260      265      270
His Val Tyr Ala Asp Gln Pro His Ile Phe Asn Ala Val Val Glu Glu
      275      280      285
Ile Cys Asp Ser Val Asp
      290

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&lt;210&gt; 3815

&lt;211&gt; 3669

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3815

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&lt;210&gt; 3816

&lt;211&gt; 707

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3816

Met	Gly	Asp	Glu	Arg	Pro	His	Tyr	Tyr	Gly	Lys	His	Gly	Thr	Pro	Gln
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Lys	Tyr	Asp	Pro	Thr	Phe	Lys	Gly	Pro	Ile	Tyr	Asn	Arg	Gly	Cys	Thr
			20					25				30			
Asp	Ile	Ile	Cys	Cys	Val	Phe	Leu	Leu	Leu	Ala	Ile	Val	Gly	Tyr	Val
		35					40					45			
Ala	Val	Gly	Ile	Ile	Ala	Trp	Thr	His	Gly	Asp	Pro	Arg	Lys	Val	Ile

50	55	60
Tyr Pro Thr Asp Ser Arg Gly Glu Phe Cys Gly Gln Lys Gly Thr Lys		
65	70	75
Asn Glu Asn Lys Pro Tyr Leu Phe Tyr Phe Asn Ile Val Lys Cys Ala		80
	85	90
Ser Pro Leu Val Leu Leu Glu Phe Gln Cys Pro Thr Pro Gln Ile Cys		95
	100	105
Val Glu Lys Cys Pro Asp Arg Tyr Leu Thr Tyr Leu Asn Ala Arg Ser		110
	115	120
Ser Arg Asp Phe Glu Tyr Tyr Lys Gln Phe Cys Val Pro Gly Phe Lys		125
	130	135
Asn Asn Lys Gly Val Ala Glu Val Leu Arg Asp Gly Asp Cys Pro Ala		140
145	150	155
Val Leu Ile Pro Ser Lys Pro Leu Ala Arg Arg Cys Phe Pro Ala Ile		160
	165	170
His Ala Tyr Lys Gly Val Leu Met Val Gly Asn Glu Thr Thr Tyr Glu		175
	180	185
Asp Gly His Gly Ser Arg Lys Asn Ile Thr Asp Leu Val Glu Gly Ala		190
	195	200
Lys Lys Ala Asn Gly Val Leu Glu Ala Arg Gln Leu Ala Met Arg Ile		205
	210	215
Phe Glu Asp Tyr Thr Val Ser Trp Tyr Trp Ile Ile Ile Gly Leu Val		220
225	230	235
Ile Ala Met Ala Met Ser Leu Leu Phe Ile Ile Leu Leu Arg Phe Leu		240
	245	250
Ala Gly Ile Met Val Trp Val Met Ile Ile Met Val Ile Leu Val Leu		255
	260	265
Gly Tyr Gly Ile Phe His Cys Tyr Met Glu Tyr Ser Arg Leu Arg Gly		270
	275	280
Glu Ala Gly Ser Asp Val Ser Leu Val Asp Leu Gly Phe Gln Thr Asp		285
	290	295
Phe Arg Val Tyr Leu His Leu Arg Gln Thr Trp Leu Ala Phe Met Ile		300
305	310	315
Ile Leu Ser Ile Leu Glu Val Ile Ile Ile Leu Leu Leu Ile Phe Leu		320
	325	330
Arg Lys Arg Ile Leu Ile Ala Ile Ala Leu Ile Lys Glu Ala Ser Arg		335
	340	345
Ala Val Gly Tyr Val Met Cys Ser Leu Leu Tyr Pro Leu Val Thr Phe		350
	355	360
Phe Leu Leu Cys Leu Cys Ile Ala Tyr Trp Ala Ser Thr Ala Val Phe		365
	370	375
Leu Ser Thr Ser Asn Glu Ala Val Tyr Lys Ile Phe Asp Asp Ser Pro		380
385	390	395
Cys Pro Xaa Tyr Cys Glu Asn Leu Xaa Asn Pro Glu Thr Phe Pro Ser		400
	405	410
Ser Asn Glu Ser Arg Gln Cys Pro Asn Ala Arg Cys Gln Phe Ala Phe		415
	420	425
Tyr Gly Gly Glu Ser Gly Tyr His Arg Ala Leu Leu Gly Leu Gln Ile		430
	435	440
Phe Asn Ala Phe Met Phe Phe Trp Leu Ala Asn Phe Val Leu Ala Leu		445
	450	455
Gly Gln Val Thr Leu Ala Gly Ala Phe Ala Ser Tyr Tyr Trp Ala Leu		460
465	470	475
Arg Lys Pro Asp Asp Leu Pro Ala Phe Pro Leu Phe Ser Ala Phe Gly		480

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 Arg Ala Leu Arg Tyr His Thr Gly Ser Leu Ala Phe Gly Ala Leu Ile  
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 580 585 590  
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 Leu Ile Val Gly Ser Val Gly Ile Leu Ala Phe Phe Phe Phe Thr His  
 610 615 620  
 Arg Ile Arg Ile Val Gln Asp Thr Ala Pro Pro Leu Asn Tyr Tyr Trp  
 625 630 635 640  
 Val Pro Ile Leu Thr Val Ile Val Gly Ser Tyr Leu Ile Ala His Gly  
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 Phe Phe Ser Val Tyr Gly Met Cys Val Asp Thr Leu Phe Leu Cys Phe  
 660 665 670  
 Leu Glu Asp Leu Glu Arg Asn Asp Gly Ser Ala Glu Arg Pro Tyr Phe  
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&lt;210&gt; 3817

&lt;211&gt; 419

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3817

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419

&lt;210&gt; 3818

&lt;211&gt; 139

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 3818

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Arg Val Val His Asn Trp Asp Phe Glu Pro Arg Lys Val Ser Arg Cys
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Ser Met Arg Tyr Leu Ala Leu Met Val Ser Arg Pro Val Leu Arg Leu
      20             25             30
Arg Glu Ile Asn Pro Leu Leu Phe Ser Tyr Val Glu Glu Leu Val Glu
      35             40             45
Ile Arg Lys Leu Arg Gln Asp Ile Leu Leu Met Lys Pro Tyr Phe Ile
      50             55             60
Thr Cys Arg Glu Ala Met Glu Ala Arg Leu Leu Leu Gln Asp Leu Leu
      65             70             75             80
Asp Val His Ala Gly Arg Leu Gly Cys Ser Leu Thr Glu Ile His Thr
      85             90             95
Leu Phe Ala Lys His Ile Lys Leu Asp Cys Glu Arg Cys Gln Ala Lys
      100            105            110
Gly Phe Val Cys Glu Leu Cys Arg Glu Gly Asp Val Leu Phe Pro Phe
      115            120            125
Asp Ser His Thr Ser Val Cys Ala Asp Cys Phe
      130            135

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&lt;210&gt; 3819

&lt;211&gt; 1731

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3819

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&lt;210&gt; 3820

&lt;211&gt; 535

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3820

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Tyr	Phe	Phe	Thr	Asn	Cys	Ser	Ile	Ser	Phe	Thr	Ser	Leu	Gly	Asp	Asn
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Ser	Trp	His	Phe	Glu	Gly	Ser	Trp	Ser	Cys	Ala	Gly	Ser	Cys	Phe	Ala
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Ser	Cys	Phe	Phe	Arg	Tyr	Cys	Ala	Pro	Ser	Glu	Pro	Ala	Thr	Gly	Arg
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Arg	Lys	Phe	Asp	Gly	Ala	Gly	Arg	Val	Ala	Val	Glu	Arg	Arg	Arg	Gly
			85				90						95		
Ser	Ser	Ala	Gly	Phe	Pro	Cys	Ser	Gln	Arg	Ser	Arg	Arg	Pro	Ala	Glu
		100					105						110		
Pro	Gly	Arg	Gly	Ile	Thr	Asp	Arg	Arg	Arg	Arg	Gly	Pro	Ile	Gly	Arg

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Glu Gln Gly Phe Gly Ala Pro Cys Leu Lys Cys Lys Glu Lys Cys Glu		
145	150	155
Gly Phe Glu Leu His Phe Trp Arg Lys Ile Cys Arg Asn Cys Lys Cys		
165	170	175
Gly Gln Glu Glu His Asp Val Leu Leu Ser Asn Glu Glu Asp Arg Lys		
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Val Gly Lys Leu Phe Glu Asp Thr Lys Tyr Thr Thr Leu Ile Ala Lys		
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Leu Lys Ser Asp Gly Ile Pro Met Tyr Lys Arg Asn Val Met Ile Leu		
210	215	220
Thr Asn Pro Val Ala Ala Lys Lys Asn Val Ser Ile Asn Thr Val Thr		
225	230	235
Tyr Glu Trp Ala Pro Val Gln Asn Gln Ala Leu Ala Arg Gln Tyr		
245	250	255
Met Gln Met Leu Pro Lys Glu Lys Gln Pro Val Ala Gly Ser Glu Gly		
260	265	270
Ala Gln Tyr Arg Lys Lys Gln Leu Ala Lys Gln Leu Pro Ala His Asp		
275	280	285
Gln Asp Pro Ser Lys Cys His Glu Leu Ser Pro Arg Glu Val Lys Glu		
290	295	300
Met Glu Gln Phe Val Lys Lys Tyr Lys Ser Glu Ala Leu Gly Val Gly		
305	310	315
Asp Val Lys Leu Pro Cys Glu Met Asp Ala Gln Gly Pro Lys Gln Met		
325	330	335
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Glu Asp Lys Ser Ala Glu His Lys Arg Thr Gln Tyr Ser Cys Tyr Cys		
355	360	365
Cys Lys Leu Ser Met Lys Glu Gly Asp Pro Ala Ile Tyr Ala Glu Arg		
370	375	380
Ala Gly Tyr Asp Lys Leu Trp His Pro Ala Cys Phe Val Cys Ser Thr		
385	390	395
Cys His Glu Leu Leu Val Asp Met Ile Tyr Phe Trp Lys Asn Glu Lys		
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Leu Tyr Cys Gly Arg His Tyr Cys Asp Ser Glu Lys Pro Arg Cys Ala		
420	425	430
Gly Cys Asp Glu Leu Ile Phe Ser Asn Glu Tyr Thr Gln Ala Glu Asn		
435	440	445
Gln Asn Trp His Leu Lys His Phe Cys Cys Phe Asp Cys Asp Ser Ile		
450	455	460
Leu Ala Gly Glu Ile Tyr Val Met Val Asn Asp Lys Pro Val Cys Lys		
465	470	475
Pro Cys Tyr Val Lys Asn His Ala Val Val Arg Ser Val Leu Arg Ile		
485	490	495
Trp Leu Pro Gln Pro Ala Leu Gly Leu Glu Phe Met Leu Phe Leu Lys		
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530	535	

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&lt;211&gt; 375

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3822

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&lt;213&gt; Homo sapiens

&lt;400&gt; 3825

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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3826

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Ile	Ser	Ser	Phe	Asp	Thr	Gly	Asp	Ile	Leu	Tyr	Ser	Pro	Phe	Ser	Arg

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 <213> Homo sapiens

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<210> 3829

<211> 5713<212> DNA

<213> Homo sapiens

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&lt;210&gt; 3830

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3830

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 20 25 30  
 Val Glu Ser Val Tyr Thr Thr Phe Arg Asp Arg Glu Ile Met Phe His

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Arg Lys Arg His Ile Gly Asn Asp Ile Val Ala Ile Ile Phe Gln Glu
  65              70              75              80
Glu Asn Thr Pro Phe Val Pro Asp Met Ile Ala Ser Asn Phe Leu His
      85              90              95
Ala Tyr Ile Val Val Gln Val Glu Thr Pro Gly Thr Glu Thr Pro Ser
      100              105              110
Tyr Lys Val Ser Val Thr Ala Arg Glu Asp Val Pro Thr Phe Gly Pro
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Pro Leu Pro Ser Pro Pro Val Phe Gln Lys Gly Pro Glu Phe Arg Glu
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Asp Lys Phe Ala Lys Leu Glu Asp Arg Thr Arg Ala Ala Leu Leu Asp
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Asn Leu His Asp Glu Leu His Ala His Thr Gln Ala Met Leu Gly Leu
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Gly Pro Glu Glu Asp Lys Phe Glu Asn Gly Gly His Gly Gly Phe Leu
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Met Val Gly Gly Gln Lys Lys Ser His Ser Gly Gly Ile Pro Gly Ser
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Pro Lys Thr Pro Asp Gly Gly His Ser Ser Gln Glu Ile Lys Ser Glu
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Lys Gln Glu Val Phe Val Tyr Ser Pro Ser Pro Ser Ser Glu Ser Pro
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Asp Lys Leu Ser His Ala Ser Ser Gly Ala Gly His
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&lt;210&gt; 3831

&lt;211&gt; 726

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3831

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&lt;210&gt; 3832

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3832

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Leu Ser Ser Ala Leu Ala Cys Tyr Gly Leu Ser Phe Leu Gln Leu His
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Ser Thr Asn Ser His Ile Asp Arg Ile Asn Phe Ser Val Lys Met Val
50          55          60
Ser Ser Ile Leu Gln Ile Pro Lys Leu Ser Tyr Leu Gly Leu Gly Asp
65          70          75          80
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&lt;211&gt; 1764

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3833

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<210> 3834

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3834

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Pro Pro Val Asn Ser Asn Ser Val Asn
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&lt;210&gt; 3835

&lt;211&gt; 2366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3835

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&lt;210&gt; 3836

&lt;211&gt; 479

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3836

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Thr	Arg	Ala	Lys	Asp	Ala	Ile	Met	Gln	Met	Trp	Leu	Asn	Ala	Arg	Arg			
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Arg	Ala	Ser	Gln	Glu	Ala	Lys	Gln	Lys	Val	Glu	Lys	Glu	Ala	Gln	Ala			
				355			360					365						
Arg	Glu	Ala	Lys	Leu	Gln	Ala	Glu	Cys	Ser	Arg	Gln	Thr	Gln	Leu	Ala			
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465

470

475

&lt;210&gt; 3837

&lt;211&gt; 2084

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3837

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&lt;210&gt; 3838

&lt;211&gt; 468

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3838

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Ser	His	Leu	Pro	Pro	Glu	His	Ser	Asp	Val	Val	Ile	Val	Gly	Gly	Gly
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Val	Leu	Gly	Leu	Ser	Val	Ala	Tyr	Trp	Leu	Lys	Lys	Leu	Glu	Ser	Arg
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Arg	Gly	Ala	Ile	Arg	Val	Leu	Val	Val	Glu	Arg	Asp	His	Thr	Tyr	Ser
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Gln	Ala	Ser	Thr	Gly	Leu	Ser	Val	Gly	Gly	Ile	Cys	Gln	Gln	Phe	Ser
			85					90						95	
Leu	Pro	Glu	Asn	Ile	Gln	Leu	Ser	Leu	Phe	Ser	Ala	Ser	Phe	Leu	Arg
		100						105					110		
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Arg	Phe	Asn	Pro	Ser	Gly	Tyr	Leu	Leu	Leu	Ala	Ser	Glu	Lys	Asp	Ala
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Ala	Ala	Met	Glu	Ser	Asn	Val	Lys	Val	Gln	Arg	Gln	Glu	Gly	Ala	Lys
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Asn	Thr	Glu	Gly	Val	Ala	Leu	Ala	Ser	Tyr	Gly	Met	Glu	Asp	Glu	Gly

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 Pro Val Glu Cys Ala Ile Val Ile Asn Ala Ala Gly Ala Trp Ser Ala  
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&lt;210&gt; 3839

&lt;211&gt; 758

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3839

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 660  
 gcggccagga ttcctgctcc ccagtgtgac atcacaaga cagaaccaac tacagtcacc  
 720  
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<210> 3840

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3840

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Glu	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Lys	Asp	Gln	Pro	Ala	Glu		
		20					25			30					
Met	Glu	Tyr	Leu	Asn	Ser	Arg	Cys	Val	Leu	Phe	Thr	Tyr	Phe	Gln	Gly
		35					40				45				
Asp	Ile	Gly	Ser	Val	Val	Asp	Glu	His	Phe	Ser	Arg	Ala	Leu	Gly	Gln
	50					55				60					
Ala	Ile	Thr	Leu	His	Pro	Glu	Ser	Ala	Ile	Ser	Lys	Ser	Lys	Met	Gly
	65				70				75					80	
Leu	Thr	Pro	Leu	Trp	Arg	Asp	Ser	Ser	Ala	Leu	Ser	Ser	Gln	Arg	Asn
			85					90					95		
Ser	Phe	Pro	Thr	Ser	Phe	Trp	Thr	Ser	Tyr	Gln	Pro	Pro	Pro	Ala	
		100					105					110			
Pro	Cys	Leu	Gly	Gly	Val	His	Pro	Asp	Phe	Gln	Val	Thr	Gly	Pro	Pro
		115					120				125				
Gly	Thr	Phe	Ser	Ala	Ala	Asp	Pro	Ser	Pro	Trp	Pro	Gly	His	Asn	Leu
	130					135					140				
His	Gln	Thr	Gly	Pro	Ala	Pro	Pro	Pro	Ala	Val	Ser	Glu	Ser	Trp	Pro
	145				150				155					160	
Tyr	Pro	Leu	Thr	Ser	Gln	Val	Ser	Pro	Ser	Tyr	Ser	His	Met	His	Asp
			165					170					175		
Val	Tyr	Met	Arg	His	His	His	Pro	His	Ala	His	Met	His	His	Arg	His
		180						185					190		
Arg	His	His	His	His	His	His	His	Pro	Pro	Ala	Gly	Ser	Ala	Leu	Asp
		195					200					205			
Pro	Ser	Tyr	Gly	Pro	Leu	Leu	Met	Pro	Ser	Val	His	Ala	Ala	Arg	Ile
		210				215					220				
Pro	Ala	Pro	Gln	Cys	Asp	Ile	Thr	Lys	Thr	Glu	Pro	Thr	Thr	Val	Thr
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245

250

<210> 3841  
 <211> 367  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 240  
 ttgaagagcg aaaagaacaa gcctctggac ccagagatgc agtgcctgct gctctcagat  
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 gggaagggct ccattccccc gaaccacgtc gtcattctcc ccggggacgg tgggagtggc  
 360  
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 367

<210> 3842  
 <211> 122  
 <212> PRT  
 <213> Homo sapiens

<400> 3842  
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 20 25 30  
 Gly Ala Ile Val Ala Ala Met Gly Ile Val Cys Phe Leu Phe Leu Ile  
 35 40 45  
 Glu His Pro Asn Asp Val Arg Cys Ser Ser Thr Leu Val Thr His Ser  
 50 55 60  
 Lys Gly Tyr Glu Asn Gly Thr Asn Arg Leu Ser Leu Pro Lys Pro Ile  
 65 70 75 80  
 Leu Lys Ser Glu Lys Asn Lys Pro Leu Asp Pro Glu Met Gln Cys Leu  
 85 90 95  
 Leu Leu Ser Asp Gly Lys Gly Ser Ile His Pro Asn His Val Val Ile  
 100 105 110  
 Leu Pro Gly Asp Gly Gly Ser Gly Pro Ala  
 115 120

<210> 3843  
 <211> 712  
 <212> DNA  
 <213> Homo sapiens

<400> 3843  
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 60



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 120  
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 240  
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 300  
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 360  
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 480  
 aaggagaagg cggaagcaca gcaggcagag catcatccgc aaggtggtgg accctgagac  
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 712

&lt;210&gt; 3844

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3844

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Arg	Gly	Arg	Gly	Ser	Glu	Lys	Arg	Lys	Lys	Ser	Arg	Lys	Asp	Thr	
			20					25					30		
Ser	Arg	Asn	Cys	Ser	Ala	Ser	Thr	Ser	Gln	Gly	Arg	Lys	Ala	Ser	Thr
		35					40					45			
Ala	Pro	Gly	Ala	Glu	Ala	Ser	Pro	Ser	Pro	Cys	Ile	Thr	Glu	Arg	Ser
	50					55					60				
Lys	Gln	Lys	Ala	Arg	Arg	Thr	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
65					70				75					80	
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
			85					90					95		
Ser	Ser	Asp	Gly	Arg	Lys	Lys	Arg	Gly	Lys	Tyr	Lys	Asp	Lys	Arg	Arg
		100						105					110		
Lys	Lys	Lys	Lys	Lys	Arg	Lys	Lys	Leu	Lys	Lys	Lys	Gly	Lys	Glu	Lys
		115					120					125			
Ala	Glu	Ala	Gln	Gln	Ala	Glu	His	His	Pro	Gln	Gly	Gly	Gly	Pro	
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&lt;210&gt; 3845

&lt;211&gt; 2302

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3845

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120  
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180  
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240  
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420  
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660  
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 2302

&lt;210&gt; 3846

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3846

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Cys	Arg	Ala	Gly	Leu	Trp	Gly	Pro	Ala	Asp	Pro	Ser	Ser	Gln	Asn	Gln
		20						25					30		
Gly	Pro	Ala	Glu	Pro	Arg	Val	Ala	Gly	Ala	Gly	Ala	Ala	Ala	Ala	Glu
		35					40					45			
Gly	Ala	Ala	Ala	Gly	Ala	Cys	Gly	Pro	Ala	Arg	Cys	Ala	Asp	Gln	Gly
		50				55					60				
Gly	Ala	Arg	Glu	Arg	Gly	Gly	Arg	Gly	Gly	Arg	Gly	Ala	Gly	Gly	Gly
		65			70				75					80	
Gly	Gly	Ala	His	Gly	His	Phe	Pro	Gln	Arg	Pro	Pro	Gln	Gln	Ala	Gly
			85					90					95		
Gln	Arg	Ala	Ala	Ser	Arg	Ala	Gly	Cys	Gly	His	Arg	Gln	Leu	Gln	Arg
		100						105					110		
Ala	Pro	Ala	Pro	Gly	Leu	Arg	Gln	His	Pro	Cys	Gly	Ser	Gly	Thr	Glu
		115					120					125			
Gly	Leu	Arg	Gly	Gly	His	Leu	Ser	Glu	Thr	Val	Cys	Ala	His	Ala	Glu
		130				135					140				
Arg	Thr	Gln	Ala	Pro	Leu	Gln	Ser	Ala	Leu	Gly	Gln	Pro	Ala	Pro	Arg
		145			150					155				160	
Pro	His	Thr	Leu	Gln	Arg	His	Leu	Gly	Pro	His	Ala	Thr	Gly	His	Gly
			165					170					175		
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185

190

<210> 3847  
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<212> DNA  
<213> Homo sapiens

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120  
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240  
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420  
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1260  
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1320

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 gaagagatgg tgactggtgc caagagactg ccctgcaacc acattttcca taccaggtgg  
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<210> 3848

<211> 120

<212> PRT

<213> Homo sapiens

<400> 3848

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Phe	Lys	Lys	Ala	Val	Thr	Asp	Ala	Ile	Met	Ser	Arg	Arg	Ala	Ile	Arg
			20					25					30		
Asn	Met	Asn	Thr	Leu	Tyr	Pro	Asp	Ala	Thr	Pro	Glu	Glu	Leu	Gln	Ala
		35					40					45			
Met	Asp	Asn	Val	Cys	Ile	Ile	Cys	Arg	Glu	Glu	Met	Val	Thr	Gly	Ala
	50				55					60					
Lys	Arg	Leu	Pro	Cys	Asn	His	Ile	Phe	His	Thr	Arg	Trp	Glu	Gly	Pro
65					70					75				80	
Trp	Gly	Ala	Cys	Pro	Ala	Gly	Pro	Arg	Pro	Gln	Lys	Ala	Gly	Pro	Lys
			85					90					95		
Gly	Pro	Ala	Asp	Leu	Cys	Leu	Ala	Leu	Thr	Arg	Ser	Cys	Leu	Arg	Ser
		100						105					110		
Trp	Phe	Gln	Arg	Gln	Gln	Thr	Cys								
	115					120									

<210> 3849

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 3849

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 180  
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 240  
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 360  
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 420

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 480  
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 600  
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 660  
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 780  
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 1139

<210> 3850

<211> 257

<212> PRT

<213> Homo sapiens

<400> 3850

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Val	Thr	Gln	Val	Leu	Val	Pro	Gly	Leu	Pro	Gly	Gly	Gly	Ser	Ala	Lys
		20						25					30		
Phe	Pro	Phe	Asn	Gln	Trp	Gly	Leu	Gln	Pro	Arg	Ser	Leu	Leu	Leu	Gln
		35					40					45			
Ala	Ala	Arg	Gly	Tyr	Val	Val	Arg	Lys	Pro	Ala	Gln	Ser	Arg	Leu	Asp
	50					55				60					
Asp	Asp	Pro	Pro	Pro	Ser	Thr	Leu	Leu	Lys	Asp	Tyr	Gln	Asn	Val	Pro
	65				70					75				80	
Gly	Ile	Glu	Lys	Val	Asp	Asp	Val	Val	Lys	Arg	Leu	Leu	Ser	Leu	Glu
			85						90				95		
Met	Ala	Asn	Lys	Lys	Glu	Met	Leu	Lys	Ile	Lys	Gln	Glu	Gln	Phe	Met
		100						105					110		
Lys	Lys	Ile	Val	Ala	Asn	Pro	Glu	Asp	Thr	Arg	Ser	Leu	Glu	Ala	Arg
	115						120					125			
Ile	Ile	Ala	Leu	Ser	Val	Lys	Ile	Arg	Ser	Tyr	Glu	Glu	His	Leu	Glu
	130						135				140				
Lys	His	Arg	Lys	Asp	Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile
	145				150					155				160	
Asp	Gln	Arg	Lys	Lys	Met	Leu	Lys	Asn	Leu	Arg	Asn	Thr	Asn	Tyr	Asp
			165					170						175	
Val	Phe	Glu	Lys	Ile	Cys	Trp	Gly	Leu	Gly	Ile	Glu	Tyr	Thr	Phe	Pro

	180		185		190										
Pro	Leu	Tyr	Tyr	Arg	Arg	Ala	His	Arg	Arg	Phe	Val	Thr	Lys	Lys	Ala
	195					200						205			
Leu	Cys	Ile	Arg	Val	Phe	Gln	Glu	Thr	Gln	Lys	Leu	Lys	Lys	Arg	Arg
	210					215					220				
Arg	Ala	Leu	Lys	Ala	Ala	Ala	Ala	Ala	Gln	Lys	Gln	Ala	Lys	Arg	Arg
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Asn	Pro	Asp	Ser	Pro	Ala	Lys	Ala	Ile	Pro	Lys	Thr	Leu	Lys	Asp	Ser
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Gln

&lt;210&gt; 3851

&lt;211&gt; 1183

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3851

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1080

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<210> 3852

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3852

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 Trp Ser Ile Ser Ser Arg His Val Leu Leu Gln Glu Glu Val Ala Glu  
 35 40 45  
 Leu Gln Gly Gln Val Gln Arg Thr Glu Val Ala Arg Gly Arg Leu Glu  
 50 55 60  
 Lys Arg Asn Ser Asp Leu Leu Leu Val Asp Thr His Lys Lys Gln  
 65 70 75 80  
 Ile Asp Gln Lys Glu Ala Asp Tyr Gly Arg Leu Ser Ser Arg Leu Gln  
 85 90 95  
 Ala Arg Glu Gly Leu Gly Lys Arg Cys Glu Asp Asp Lys Val Lys Leu  
 100 105 110  
 Gln Asn Asn Ile Ser Tyr Gln Met Ala Asp Ile His His Leu Lys Glu  
 115 120 125  
 Gln Leu Ala Glu Leu Arg Gln Glu Phe Leu Arg Gln Glu Asp Gln Leu  
 130 135 140  
 Gln Asp Tyr Arg Lys Asn Asn Thr Tyr Leu Val Lys Arg Leu Glu Tyr  
 145 150 155 160  
 Glu Ser Phe Gln Cys Gly Gln Gln Met Lys Glu Leu Arg Ala Gln His  
 165 170 175  
 Glu Glu Asn Ile Lys Lys Leu Ala Asp Gln Phe Leu Glu Glu Gln Lys  
 180 185 190  
 Gln Glu Thr Gln Lys Ile Gln Ser Asn Asp Gly Lys Glu Leu Asp Ile  
 195 200 205  
 Asn Asn Gln Val Val Pro Lys Asn Ile Pro Lys Val Ala Glu Asn Val  
 210 215 220  
 Ala Asp Lys Asn Glu Glu Pro Ser Ser Asn His Ile Pro His Gly Lys  
 225 230 235 240  
 Glu Gln Ile Lys Arg Gly Gly Asp Ala Gly Met Pro Gly Ile Glu Glu  
 245 250 255  
 Asn Asp Leu Ala Lys Val Asp Asp Leu Pro Pro Ala Leu Arg Lys Pro  
 260 265 270  
 Pro Ile Ser Val Ser Gln His Glu Ser His Gln Ala Ile Ser His Leu  
 275 280 285  
 Pro Thr Gly Gln Pro Leu Ser Pro Asn Met Pro Pro Asp Ser His Ile  
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 305 310 315 320  
 Leu His Ala



<210> 3853  
 <211> 375  
 <212> DNA  
 <213> Homo sapiens

<400> 3853  
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 actatcagtg catcc  
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<210> 3854  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 3854  
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 Gln Ile Tyr Lys Gln Leu Gln Glu Met Asp Glu Arg Arg Thr Ile Lys  
 35 40 45  
 Leu Ser Glu Cys Tyr Arg Gly Phe Ala Asp Ser Glu Arg Lys Val Ile  
 50 55 60  
 Pro Ile Ile Ser Lys Cys Leu Glu Gly Met Ile Leu Ala Ala Lys Ser  
 65 70 75 80  
 Val Asp Glu Arg Arg Asp Ser Gln Met Val Val Asp Ser Phe Lys Ser  
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 Ile Tyr Arg Thr Ile Ser Asp Gly Thr Ile Ser Ala Ser  
 115 120 125

<210> 3855  
 <211> 1377  
 <212> DNA  
 <213> Homo sapiens

<400> 3855  
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 300  
 tcaactcaca acttctctgac ggaagtgtct gcctattcca acagctcagc tcgaggccgt  
 360  
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 780  
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 840  
 aatgttgag ctcttgga gacgcagcct gagaatatct cgaacccctt gtatgagagc  
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 acaacctcag ctccccaga accttctac gacccttca cggactctga agaacggcag  
 960  
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 1080  
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 1140  
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 1200  
 ggctcttctt cctttgtact cttcagctgg cacctgtctc attctgcctt acatgatggg  
 1260  
 taactgtgat ctttcttccc tgtagattg taagcctccg tctttgtatc ccagccccta  
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 1377

&lt;210&gt; 3856

&lt;211&gt; 330

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3856

Xaa	Ala	Ala	Thr	Met	Ala	Thr	Tyr	Asn	Gln	Leu	Ser	Tyr	Ala	Gln	Lys
1				5				10					15		
Ala	Lys	Tyr	His	Leu	Cys	Ser	Ala	Gly	Trp	Leu	Glu	Thr	Gly	Arg	Val
			20					25					30		
Ala	Tyr	Pro	Thr	Ala	Phe	Ala	Ser	Gln	Asn	Cys	Gly	Ser	Gly	Val	Val

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      35      40      45
Gly Ile Val Asp Tyr Gly Pro Arg Pro Asn Lys Ser Glu Met Trp Asp
  50      55      60
Val Phe Cys Tyr Arg Met Lys Asp Val Asn Cys Thr Cys Lys Val Gly
  65      70      75      80
Tyr Val Gly Asp Gly Phe Ser Cys Ser Gly Asn Leu Leu Gln Val Leu
      85      90      95
Met Ser Phe Pro Ser Leu Thr Asn Phe Leu Thr Glu Val Leu Ala Tyr
      100      105      110
Ser Asn Ser Ser Ala Arg Gly Arg Ala Phe Leu Glu His Leu Thr Asp
      115      120      125
Leu Ser Ile Arg Gly Thr Leu Phe Val Pro Gln Asn Ser Gly Leu Gly
      130      135      140
Glu Asn Glu Thr Leu Ser Gly Arg Asp Ile Glu His His Leu Ala Asn
      145      150      155      160
Val Ser Met Phe Phe Tyr Asn Asp Leu Val Asn Gly Thr Xaa Pro Ala
      165      170      175
Asn Glu Gly Gly Lys Gln Ala Ala His His Cys Gln Pro Gly Pro Thr
      180      185      190
Xaa Gln Pro Thr Glu Thr Arg Phe Val Asp Gly Arg Ala Ile Leu Gln
      195      200      205
Trp Asp Ile Phe Ala Ser Asn Gly Ile Ile His Val Ile Ser Arg Pro
      210      215      220
Leu Lys Ala Pro Pro Ala Pro Val Thr Leu Thr His Thr Gly Leu Gly
      225      230      235      240
Ala Gly Ile Phe Phe Ala Ile Ile Leu Val Thr Gly Ala Val Ala Leu
      245      250      255
Ala Ala Tyr Ser Tyr Phe Arg Ile Asn Arg Arg Thr Ile Gly Phe Gln
      260      265      270
His Phe Glu Ser Glu Glu Asp Ile Asn Val Ala Ala Leu Gly Lys Gln
      275      280      285
Gln Pro Glu Asn Ile Ser Asn Pro Leu Tyr Glu Ser Thr Thr Ser Ala
      290      295      300
Pro Pro Glu Pro Ser Tyr Asp Pro Phe Thr Asp Ser Glu Glu Arg Gln
      305      310      315      320
Leu Glu Gly Asn Asp Pro Leu Arg Thr Leu
      325      330

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&lt;210&gt; 3857

&lt;211&gt; 797

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3857

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  120
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  180
acaggggacac ttgcgacgaa gactcggtag ccggcgagtc ggaccgcata gacgatggca
  240
ctgttaatgg ccgcggctgc tccccgggcg agtcggcctc ggggggctg tccaaaaagc
  300

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 420  
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 480  
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 720  
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 780  
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 797

&lt;210&gt; 3858

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3858

Xaa Arg Ala Thr Thr Arg Thr Ala Ser Gly Ala Arg Ser Trp Ala Trp  
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 Ala Thr Arg Ala Ala Pro Cys Pro Thr Ser Cys Arg Ala Trp Cys Ser  
 20 25 30  
 Ala Pro Cys Ser Thr Ser Ala Arg Pro Ser Thr Arg Ser Trp Ala Arg  
 35 40 45  
 Ser Ile Ser Ala Ala Thr Trp Pro Arg Pro Arg Ala Thr Gly Thr Leu  
 50 55 60  
 Ala Thr Lys Thr Arg Trp Pro Ala Ser Arg Thr Ala  
 65 70 75

&lt;210&gt; 3859

&lt;211&gt; 1449

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3859

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 120  
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 180  
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 240  
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 300  
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 360

cctaagcgaa tagcacaaac acagccagct gaatcaaaca ccatcagtag gataactgca  
 420  
 aacatggaaa atggagaaaa tgaaggaaca attaaaatta ttgcaccttc accagtaaaa  
 480  
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 720  
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 780  
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 1440  
 aaggttgtg  
 1449

&lt;210&gt; 3860

&lt;211&gt; 348

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3860

Tyr	Lys	Asn	Lys	Lys	Gln	Val	Gly	Lys	Tyr	Phe	Trp	Pro	Arg	Ile	Thr
1				5				10						15	
Lys	Val	His	Phe	Lys	Glu	Thr	Gln	Phe	Glu	Leu	Arg	Val	Leu	Gly	Lys
				20				25					30		
Asp	Cys	Asn	Glu	Thr	Ser	Phe	Phe	Glu	Ala	Arg	Ser	Lys	Thr	Ala	
				35			40					45			
Cys	Lys	His	Leu	Trp	Lys	Cys	Ser	Val	Glu	His	His	Thr	Phe	Phe	Arg
				50			55				60				
Met	Pro	Glu	Asn	Glu	Ser	Asn	Ser	Leu	Ser	Arg	Lys	Leu	Ser	Lys	Phe

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65          70          75          80
Gly Ser Ile Arg Tyr Lys His Arg Tyr Ser Gly Arg Thr Ala Leu Gln
      85          90          95
Met Ser Arg Asp Leu Ser Ile Gln Leu Pro Arg Pro Asp Gln Asn Val
      100        105        110
Thr Arg Ser Arg Ser Lys Thr Tyr Pro Lys Arg Ile Ala Gln Thr Gln
      115        120        125
Pro Ala Glu Ser Asn Thr Ile Ser Arg Ile Thr Ala Asn Met Glu Asn
      130        135        140
Gly Glu Asn Glu Gly Thr Ile Lys Ile Ile Ala Pro Ser Pro Val Lys
      145        150        155        160
Ser Phe Lys Lys Ala Lys Asn Glu Asn Ser Pro Asp Thr Gln Arg Ser
      165        170        175
Lys Ser His Ala Pro Trp Glu Glu Asn Gly Pro Gln Ser Gly Leu Tyr
      180        185        190
Asn Ser Pro Ser Asp Arg Thr Lys Ser Pro Lys Phe Pro Tyr Thr Arg
      195        200        205
Arg Arg Asn Pro Ser Cys Gly Ser Asp Asn Asp Ser Val Gln Pro Val
      210        215        220
Arg Arg Arg Lys Ala His Asn Ser Gly Glu Asp Ser Asp Leu Lys Gln
      225        230        235        240
Arg Arg Arg Ser Arg Ser Arg Cys Asn Thr Ser Ser Gly Ser Glu Ser
      245        250        255
Glu Asn Ser Asn Arg Glu His Arg Lys Lys Arg Asn Arg Ile Arg Gln
      260        265        270
Glu Asn Asp Met Val Asp Ser Ala Pro Gln Trp Glu Ala Val Leu Arg
      275        280        285
Arg Gln Lys Glu Lys Asn Gln Ala Asp Pro Asn Asn Arg Arg Ser Arg
      290        295        300
His Arg Ser Arg Ser Arg Ser Pro Asp Ile Gln Ala Lys Glu Glu Leu
      305        310        315        320
Trp Lys His Ile Gln Lys Glu Leu Val Asp Pro Ser Gly Leu Ser Glu
      325        330        335
Glu Gln Leu Lys Glu Ile Pro Tyr Thr Lys Ile Glu
      340        345

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&lt;210&gt; 3861

&lt;211&gt; 748

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3861

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gccacatgt cgggagacaa acttctgagc gaactcgggtt ataagctggg ccgcacaatt

120

ggagagggca gctactccaa ggtgaaggtg gccacatcca agaagtacaa gggtagcgtg

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240

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360

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<210> 3862  
 <211> 210  
 <212> PRT  
 <213> Homo sapiens

<400> 3862  
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 Lys Tyr Lys Gly Thr Val Ala Ile Lys Val Val Asp Arg Arg Arg Ala  
 35 40 45  
 Pro Pro Asp Phe Val Asn Lys Phe Leu Pro Arg Glu Leu Ser Ile Leu  
 50 55 60  
 Arg Gly Val Arg His Pro His Ile Val His Val Phe Glu Phe Ile Glu  
 65 70 75 80  
 Val Cys Asn Gly Lys Leu Tyr Ile Val Met Glu Ala Ala Ala Thr Asp  
 85 90 95  
 Leu Leu Gln Ala Val Gln Arg Asn Gly Arg Ile Pro Gly Val Gln Ala  
 100 105 110  
 Arg Asp Leu Phe Ala Gln Ile Ala Gly Ala Val Arg Tyr Leu His Asp  
 115 120 125  
 His His Leu Val His Arg Asp Leu Lys Cys Glu Asn Val Leu Leu Ser  
 130 135 140  
 Pro Asp Glu Arg Arg Val Lys Leu Thr Asp Phe Gly Phe Gly Arg Gln  
 145 150 155 160  
 Ala His Gly Tyr Pro Asp Leu Ser Thr Thr Tyr Cys Gly Ser Ala Val  
 165 170 175  
 Arg Val Thr Arg Val Met His Phe Leu Ser Thr Tyr Cys Leu Pro Gly  
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 Pro Arg Ala His Gly Glu Glu Thr Trp Ala His Pro Cys Arg Lys Arg  
 195 200 205  
 Asp Asn  
 210

<210> 3863  
 <211> 341  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 3863

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 240  
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 300  
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 341

&lt;210&gt; 3864

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3864

Met	Ala	Cys	Pro	Lys	Arg	Leu	Ile	Lys	Ile	Tyr	Ser	Asp	Ser	Ile	Met
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Ile	Gly	Trp	Leu	Ala	Trp	Asn	Val	Pro	Ser	Ala	Trp	Thr	Leu	Arg	Glu
			20					25					30		
Leu	Gly	Cys	Gln	Pro	Met	Ala	Arg	Trp	Phe	Ser	Gly	Ser	Leu	Asp	Gln
		35				40					45				
Lys	Asn	Leu	Val	Glu	Ile	Ser	His	Thr	Val	Phe	Phe	Pro	Glu	Ser	Gln
	50					55				60					
Leu	Arg	Ala	Lys	Leu	Lys	Cys	Pro	Gly	Gly	Ser	Cys	Thr	Pro	Gly	Leu
65					70					75				80	
Lys	Lys	Ile	Gly	Ser	Leu	Lys	Val	Ser	Cys	Glu	Glu	Phe	Leu	Leu	Met
			85					90						95	
Gly	Leu	Arg	Tyr	Gln	His	Leu	Asp	Pro	Pro	Ser	Arg				
			100					105							

&lt;210&gt; 3865

&lt;211&gt; 492

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3865

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 aatcaggaat tgacgataag cttactacat tttgaaatta tctgactttc tcatgaaat  
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 180  
 tattctgaca cttgtttcat gcagccatac cagtcacaac tttaaatttt tagtcagact  
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 300  
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 360



tagtctgggt caaatagtagt aaactgaata ttccttaacc aaaatgcttg gaagtaggcc  
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 480  
 tcaaggtcag ca  
 492

<210> 3866  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 3866  
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 1 5 10 15  
 Ser His Asn Phe Lys Phe Leu Val Arg Leu Cys Ser Gln Gly Phe Arg  
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 Ile Ile Asn Thr Asn Gly Leu Gly Gln Pro Ser His Ser Ser Leu Leu  
 35 40 45  
 Phe Thr Ser Leu Gln Leu Gln Leu Ser Phe Phe Ile Thr Leu Leu Phe  
 50 55 60  
 Leu Ser Ser Leu Gly Gln Ile Val Gln Thr Glu Tyr Ser Leu Thr Lys  
 65 70 75 80  
 Met Leu Gly Ser Arg Pro Gly Ala Ala Ala His Pro Cys Asn Pro Ser  
 85 90 95  
 Ile Leu Gly Gly Gln Ser Arg Gln Ile Thr Gln Gly Gln  
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<210> 3867  
 <211> 1032  
 <212> DNA  
 <213> Homo sapiens

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 ctggacagtg caaagcgatc ggaggacagg gagaaggagg ctctgattga ggagctctta  
 180  
 caggcaaaac aggatcttca agatctgctg attgccaaag aggagcaaga agacctcttg  
 240  
 agaaagcgag agcgtgaact caccgccctg aaggagagccc tgaaagaaga ggtttccagc  
 300  
 catgatcagg agatggacaa gctgaaggag caatatgatg ctgagttgca ggccttgagg  
 360  
 gagagtgtgg aagaagcaac caagaatgtc gaggtcttgg cgagcaggag caacacttca  
 420  
 gagcaagacc aggcggggac tgaaatgcgc gtgaagcttc tgcaggagga gaatgagaag  
 480  
 ctgcagggaa gaagcgaaga gctggagcgg agagttgctc agcttcaaag gcagatcgag  
 540  
 gacctgaaag gcgatgaagc caaggcgaag gaaacgctga agaagtacga gggagaaata  
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cgacagttag agggagccct tgtgcacgcc agaaaggaag aaaaagaagc tgtgtcagcc  
 660  
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 720  
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 780  
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 840  
 cagaaggaga tggcagacat tgttgaggcc tcccgtacct caaccctgga gctccagaac  
 900  
 cagctggatg agtataagga gaaaaaccgc agggagctcg cagaaatgca aagacagttg  
 960  
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 1020  
 atgcgtctga tg  
 1032

<210> 3868  
 <211> 344  
 <212> PRT  
 <213> Homo sapiens

<400> 3868  
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 Gln Leu Ser Glu Met His Asp Glu Leu Asp Ser Ala Lys Arg Ser Glu  
 35 40 45  
 Asp Arg Glu Lys Gly Ala Leu Ile Glu Glu Leu Leu Gln Ala Lys Gln  
 50 55 60  
 Asp Leu Gln Asp Leu Leu Ile Ala Lys Glu Glu Gln Glu Asp Leu Leu  
 65 70 75 80  
 Arg Lys Arg Glu Arg Glu Leu Thr Ala Leu Lys Gly Ala Leu Lys Glu  
 85 90 95  
 Glu Val Ser Ser His Asp Gln Glu Met Asp Lys Leu Lys Glu Gln Tyr  
 100 105 110  
 Asp Ala Glu Leu Gln Ala Leu Arg Glu Ser Val Glu Glu Ala Thr Lys  
 115 120 125  
 Asn Val Glu Val Leu Ala Ser Arg Ser Asn Thr Ser Glu Gln Asp Gln  
 130 135 140  
 Ala Gly Thr Glu Met Arg Val Lys Leu Leu Gln Glu Glu Asn Glu Lys  
 145 150 155 160  
 Leu Gln Gly Arg Ser Glu Glu Leu Glu Arg Arg Val Ala Gln Leu Gln  
 165 170 175  
 Arg Gln Ile Glu Asp Leu Lys Gly Asp Glu Ala Lys Ala Lys Glu Thr  
 180 185 190  
 Leu Lys Lys Tyr Glu Gly Glu Ile Arg Gln Leu Glu Glu Ala Leu Val  
 195 200 205  
 His Ala Arg Lys Glu Glu Lys Glu Ala Val Ser Ala Arg Arg Ala Leu  
 210 215 220  
 Glu Asn Glu Leu Glu Ala Ala Gln Gly Asn Leu Ser Gln Thr Thr Gln  
 225 230 235 240  
 Glu Gln Lys Gln Leu Ser Glu Lys Leu Lys Glu Glu Ser Glu Gln Lys

				245				250				255			
Glu	Gln	Leu	Arg	Arg	Leu	Lys	Asn	Glu	Met	Glu	Asn	Glu	Arg	Trp	His
260				265				270							
Leu	Gly	Lys	Thr	Ile	Glu	Lys	Leu	Gln	Lys	Glu	Met	Ala	Asp	Ile	Val
275				280				285							
Glu	Ala	Ser	Arg	Thr	Ser	Thr	Leu	Glu	Leu	Gln	Asn	Gln	Leu	Asp	Glu
290				295				300							
Tyr	Lys	Glu	Lys	Asn	Arg	Arg	Glu	Leu	Ala	Glu	Met	Gln	Arg	Gln	Leu
305				310				315				320			
Lys	Glu	Lys	Thr	Leu	Glu	Ala	Glu	Lys	Ser	Arg	Leu	Thr	Ala	Met	Lys
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Met	Gln	Asp	Glu	Met	Arg	Leu	Met								
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<210> 3869
<211> 1226
<212> DNA
<213> Homo sapiens
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120
tgatgcacac acattccaga aatgcagagg tatgctgctg ccacggggta ggggtgcggg
180
aggcggcctg gcctcatggc cgcagacctg gccccagccc gggcctggca ggtagctggc
240
cactgataaa tgccactggg atcctaggag aagctgggga ccatgcgtga ggtactgaag
300
gggaccatgg tggatggcat cctgggcact ttgtagcttg tctgagggaa aggcctctgc
360
tgccatagaa aagctggaca catgtcacc tggggccctg acatccctaa atgccccact
420
gactaccagt cactaggaga aaggctctcg gctatgcctt tcccagtgat gcttgcccca
480
gagtgactgg tcacaggtgg gggacaggtt tgctccagaa accgtagggc ttctctgtct
540
ggccccctaa agaggaccca agatcaggaa aactccccag tttaaaaaaa tatctgtcca
600
tctgtatata aaatacctat tattagctgg agttgcacac atgcaggacc aggagagact
660
gcctgaggtt ctgcctggac cgaaggaggc ctcgctcaca gcacctctgt gaggggactg
720
gtgctcctgg gaagtcactt ctcttggtga ccgagctgac accccctcca cttggaaagc
780
acagggactg agcaggcggg acctgtgctg gagggagacc ctcttggtga ggaactatgc
840
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900
caccacccca tctgcctctg gccccagtg aagtcagaag aggcaggagc ccgcaggct
960
gtgagcctgg cgcaggtcgg ctgacagcga gcttctcctc tgccctgggtg tagagcggac
1020

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gctctcggca gcctgcacgg cccgggtcag ggccttggtg agtcctcta ggtcgcccag  
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<210> 3870

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3870

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Ala	Ile	His	His	Gly	Pro	Leu	Gln	Tyr	Leu	Thr	His	Gly	Pro	Gln	Leu
			20					25					30		
Leu	Leu	Gly	Ser	Gln	Trp	His	Leu	Ser	Val	Ala	Ser	Tyr	Leu	Pro	Gly
		35				40					45				
Pro	Gly	Trp	Gly	Thr	Val	Cys	Gly	His	Glu	Ala	Arg	Pro	Pro	Pro	Ala
	50					55					60				
Pro	Leu	Pro	Arg	Gly	Ser	Ser	Ile	Pro	Leu	His	Phe	Trp	Asn	Val	Cys
65					70					75				80	
Ala	Ser	Met	Met	Phe	Val	Tyr	Leu	Arg	His	Leu	Lys	Ile	Tyr	Phe	Arg
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Tyr	Glu	Gly	Lys												
			100												

<210> 3871

<211> 473

<212> DNA

<213> Homo sapiens

<400> 3871

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120  
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240  
aaaaaacata aggagagaga tcttaaacga ggtaaatcga gagaatcagt ggattcccga  
300  
gactccagtc actcaaggga aaggtcagct gaaaaaacag agaaaactca taaaggatca  
360  
aagaaacaga agaaagacct ctgagagccg agacaagctg ggagcgaaag gagattttcc  
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473

<210> 3872

<211> 66  
 <212> PRT  
 <213> Homo sapiens

<400> 3872  
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           20                  25                  30  
 Arg Glu Ser Val Asp Ser Arg Asp Ser Ser His Ser Arg Glu Arg Ser  
           35                  40                  45  
 Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys Lys  
       50                  55                  60  
 Asp Leu  
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<210> 3873  
 <211> 869  
 <212> DNA  
 <213> Homo sapiens

<400> 3873  
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 180  
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 420  
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 540  
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 780  
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 869

<210> 3874

<211> 289  
 <212> PRT  
 <213> Homo sapiens

<400> 3874  
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 Glu Ala Tyr His Leu Ser Phe Glu Arg Arg Gln Lys Ser Ser Glu Ala  
 35 40 45  
 Pro Val Gln Ser Pro Gln Arg Ser Val Asp Ser Ile Ser Gln Glu Ser  
 50 55 60  
 Ser Thr Ser Ser Phe Ser Ser Met Ser Ala Gly Ser Arg Gln Glu Glu  
 65 70 75 80  
 Thr Lys Lys Asp Tyr Arg Glu Val Glu Lys Leu Leu Arg Ala Val Ala  
 85 90 95  
 Asp Gly Asp Leu Glu Met Val Arg Tyr Leu Leu Glu Trp Thr Glu Glu  
 100 105 110  
 Asp Leu Glu Asp Ala Glu Asp Thr Val Ser Ala Ala Asp Pro Glu Phe  
 115 120 125  
 Cys His Pro Leu Cys Gln Cys Pro Lys Cys Ala Pro Ala Gln Lys Arg  
 130 135 140  
 Leu Ala Lys Val Pro Ala Ser Gly Leu Gly Val Asn Val Thr Ser Gln  
 145 150 155 160  
 Asp Gly Ser Ser Pro Leu His Val Ala Ala Leu His Gly Arg Ala Asp  
 165 170 175  
 Leu Ile Arg Leu Leu Leu Lys His Gly Ala Asn Ala Gly Ala Arg Asn  
 180 185 190  
 Ala Asp Gln Ala Val Pro Leu His Leu Ala Cys Gln Gln Gly His Phe  
 195 200 205  
 Gln Val Val Lys Cys Leu Leu Asp Ser Asn Ala Lys Pro Asn Lys Lys  
 210 215 220  
 Asp Leu Ser Gly Asn Thr Pro Leu Ile Tyr Ala Cys Ser Gly Gly His  
 225 230 235 240Glu Leu  
 Val Ala Leu Leu Leu Gln His Gly Ala Ser Ile Asn Ala  
 245 250 255  
 Leu Thr Ile Arg Gly Asn Thr Ala Leu His Glu Ala Val Ile Glu Lys  
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 His Val Phe Val Val Glu Leu Leu Leu Leu His Gly Ala Ser Val Arg  
 275 280 285  
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<210> 3875  
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 <212> DNA  
 <213> Homo sapiens

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 2520  
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<210> 3876

<211> 824

<212> PRT

<213> Homo sapiens

<400> 3876

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			20					25					30		
Pro	Pro	Ala	Ala	Leu	Gly	Leu	Val	Ser	Ser	Arg	Thr	Ser	Gly	Ala	Val
			35				40					45			
Pro	Pro	Lys	Glu	Glu	Glu	Leu	Arg	Ala	Ala	Val	Glu	Val	Leu	Arg	Gly
			50			55				60					
His	Gly	Leu	His	Ser	Val	Leu	Glu	Glu	Trp	Phe	Val	Glu	Val	Leu	Gln
65					70				75					80	
Asn	Asp	Leu	Gln	Ala	Asn	Ile	Ser	Pro	Glu	Phe	Trp	Asn	Ala	Ile	Ser
			85						90					95	
Gln	Cys	Glu	Asn	Ser	Ala	Asp	Glu	Pro	Gln	Cys	Leu	Leu	Leu	Leu	Leu
			100					105						110	
Asp	Ala	Phe	Gly	Leu	Leu	Glu	Ser	Arg	Leu	Asp	Pro	Tyr	Leu	Arg	Ser
			115					120				125			
Leu	Glu	Leu	Leu	Glu	Lys	Trp	Thr	Arg	Leu	Gly	Leu	Leu	Met	Gly	Thr



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Gly Ala Gln Gly Leu Arg Glu Glu Val His Thr Met Leu Arg Gly Val		
145	150	155
Leu Phe Phe Ser Thr Pro Arg Thr Phe Gln Glu Met Ile Gln Arg Leu		160
	165	170
Tyr Gly Cys Phe Leu Arg Val Tyr Met Gln Ser Lys Arg Lys Gly Glu		175
	180	185
Gly Gly Thr Asp Pro Glu Leu Glu Gly Glu Leu Asp Ser Arg Tyr Ala		190
	195	200
Arg Arg Arg Tyr Tyr Arg Leu Leu Gln Ser Pro Leu Cys Ala Gly Cys		205
	210	215
Ser Ser Asp Lys Gln Gln Cys Trp Cys Arg Gln Ala Leu Glu Gln Phe		220
225	230	235
His Gln Leu Ser Gln Val Leu His Arg Leu Ser Leu Leu Glu Arg Val		240
	245	250
Ser Ala Glu Ala Val Thr Thr Thr Leu His Gln Val Thr Arg Glu Arg		255
	260	265
Met Glu Asp Arg Cys Arg Gly Glu Tyr Glu Arg Ser Phe Leu Arg Glu		270
	275	280
Phe His Arg Trp Ile Glu Arg Val Val Gly Trp Leu Gly Lys Val Phe		285
	290	295
Leu Gln Asp Gly Pro Ala Arg Pro Ala Ser Pro Glu Ala Gly Asn Thr		300
305	310	315
Leu Arg Arg Trp Arg Cys His Val Gln Arg Phe Phe Tyr Arg Ile Tyr		320
	325	330
Ala Ser Leu Arg Ile Glu Glu Leu Phe Ser Ile Val Arg Asp Phe Pro		335
	340	345
Asp Ser Arg Pro Ala Ile Glu Asp Leu Lys Tyr Cys Leu Glu Arg Thr		350
	355	360
Asp Gln Arg Gln Gln Leu Leu Val Ser Leu Lys Ala Ala Leu Glu Thr		365
	370	375
Arg Leu Leu His Pro Gly Val Asn Thr Cys Asp Ile Ile Thr Leu Tyr		380
385	390	395
Ile Ser Ala Ile Lys Ala Leu Arg Val Leu Asp Pro Ser Met Val Ile		400
	405	410
Leu Glu Val Ala Cys Glu Pro Ile Arg Arg Tyr Leu Arg Thr Arg Glu		415
	420	425
Asp Thr Val Arg Gln Ile Val Ala Gly Leu Thr Gly Asp Ser Asp Gly		430
	435	440
Thr Gly Asp Leu Ala Val Glu Leu Ser Lys Thr Asp Pro Ala Ser Leu		445
	450	455
Glu Thr Gly Gln Asp Ser Glu Asp Asp Ser Gly Glu Pro Glu Asp Trp		460
465	470	475
Val Pro Asp Pro Val Asp Ala Asp Pro Gly Lys Ser Ser Ser Lys Arg		480
	485	490
Arg Ser Ser Asp Ile Ile Ser Leu Leu Val Ser Ile Tyr Gly Ser Lys		495
	500	505
Asp Leu Phe Ile Asn Glu Tyr Arg Ser Leu Leu Ala Asp Arg Leu Leu		510
	515	520
His Gln Phe Ser Phe Ser Pro Glu Arg Glu Ile Arg Asn Val Glu Leu		525
	530	535
Leu Lys Leu Arg Phe Gly Glu Ala Pro Met His Phe Cys Glu Val Met		540
545	550	555
Leu Lys Asp Met Ala Asp Ser Arg Arg Ile Asn Ala Asn Ile Arg Glu		560

565 570 575  
 Glu Asp Glu Lys Arg Xaa Gln Gln Arg Ser Ser His Arg Ser Gly Ser  
 580 585 590  
 Thr Leu Ser Ser Cys Pro Val Ser Ser Gly Arg Pro Ser Arg Thr Xaa  
 595 600 605  
 Lys Leu Glu Val Pro Glu Asp Ile Arg Ala Ala Leu Glu Ala Tyr Cys  
 610 615 620  
 Lys Lys Tyr Glu Gln Leu Lys Ala Met Arg Thr Leu Ser Trp Lys His  
 625 630 635 640  
 Thr Leu Gly Leu Val Thr Met Asp Val Glu Leu Ala Asp Arg Thr Leu  
 645 650 655  
 Ser Val Ala Val Thr Pro Val Gln Ala Val Ile Leu Leu Tyr Phe Gln  
 660 665 670  
 Asp Gln Ala Ser Trp Thr Leu Glu Glu Leu Ser Lys Ala Val Lys Met  
 675 680 685  
 Pro Val Ala Leu Leu Arg Arg Arg Met Ser Val Trp Leu Gln Gln Gly  
 690 695 700  
 Val Leu Arg Glu Xaa Ser Pro Pro Ala Pro Ser Leu Ser Leu Arg Arg  
 705 710 715 720  
 Ser Gly Leu Arg Thr Gly Xaa Asn Met Val Leu Ile Asp Ser Asp Asp  
 725 730 735  
 Glu Ser Asp Ser Gly Met Ala Ser Gln Ala Asp Gln Lys Glu Glu Glu  
 740 745 750  
 Leu Leu Leu Phe Trp Thr Tyr Ile Gln Ala Met Leu Thr Asn Leu Glu  
 755 760 765  
 Ser Leu Ser Leu Asp Arg Ile Tyr Asn Met Leu Arg Met Phe Val Val  
 770 775 780  
 Thr Gly Pro Ala Leu Ala Glu Ile Asp Leu Gln Glu Leu Gln Gly Tyr  
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 Tyr Arg Leu Pro Lys Asn Cys Ser  
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&lt;210&gt; 3877

&lt;211&gt; 1112

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3877

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<210> 3878

<211> 370

<212> PRT

<213> Homo sapiens

<400> 3878

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				20				25					30		
His	Ala	Lys	Lys	Ala	Asn	Gly	Pro	Asn	Tyr	Ile	Gln	Pro	Gln	Lys	Arg
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Lys	Lys	Leu	Val	His	Asn	Ala	Leu	Ala	Asn	Leu	Asp	Gly	His	Pro	Glu

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 210 215 220  
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 Asp Glu Glu Ser Asp Ser Glu Asp Asp Ser Asn Arg Phe Lys Ile Lys  
 245 250 255  
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&lt;210&gt; 3879

&lt;211&gt; 2769

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3879

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<210> 3880  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 3880  
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 Ala Ile Asp Leu Ser Arg Asn Gln Phe Gln Asp Phe Pro Glu Gln Leu  
 35 40 45  
 Thr Ala Leu Pro Ala Leu Glu Thr Ile Asn Leu Glu Glu Asn Glu Ile  
 50 55 60  
 Val Asp Val Pro Val Glu Lys Leu Ala Ala Met Pro Ala Leu Arg Ser  
 65 70 75 80  
 Ile Asn Leu Arg Phe Asn Pro Leu Asn Ala Glu Val Arg Val Ile Ala  
 85 90 95  
 Pro Pro Leu Ile Lys Phe Asp Met Leu Met Ser Pro Glu Gly Ala Arg  
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<210> 3881  
 <211> 1393  
 <212> DNA  
 <213> Homo sapiens

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 1393

&lt;210&gt; 3882

&lt;211&gt; 277

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3882

Asp	Leu	Gly	Pro	Trp	Ser	Gln	Tyr	Ala	Pro	Pro	Glu	Trp	Ser	Gln	Gly
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			20				25					30			
Gln	Met	Pro	Ser	Leu	Asn	Trp	Pro	Glu	Ala	Leu	Pro	Pro	Pro	Pro	Pro

35	40	45
Ser Cys Glu Leu Ser Cys Leu Glu Gly Pro Glu Glu Glu Leu Glu Gly		
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Ser Ser Glu Pro Glu Glu Trp Cys Pro Pro Met Pro Glu Arg Ser His		
65	70	75
Leu Thr Glu Pro Ser Ser Gly Gly Trp Leu Val Thr Pro Ser Arg		
85	90	95
Arg Glu Thr Pro Ser Pro Thr Pro Ser Tyr Gly Gln Gln Ser Thr Ala		
100	105	110
Thr Leu Thr Pro Ser Pro Pro Asp Pro Pro Gln Pro Pro Thr Asp Met		
115	120	125
Pro His Leu His Gln Met Pro Arg Arg Val Pro Leu Gly Pro Ser Ser		
130	135	140
Pro Leu Ser Val Ser Gln Pro Met Leu Gly Ile Arg Glu Ala Arg Pro		
145	150	155
Ala Gly Leu Gly Ala Gly Pro Ala Ala Ser Pro His Leu Ser Pro Ser		
165	170	175
Pro Ala Pro Ser Thr Ala Ser Ser Ala Pro Gly Arg Thr Trp Gln Gly		
180	185	190
Asn Gly Glu Met Thr Pro Pro Leu Gln Gly Pro Arg Ala Arg Phe Arg		
195	200	205
Lys Lys Pro Lys Ala Leu Pro Tyr Arg Arg Glu Asn Ser Pro Gly Asp		
210	215	220
Leu Pro Pro Pro Pro Leu Pro Pro Pro Glu Xaa Arg Gly Glu Leu Gly		
225	230	235
Pro Arg Ala Glu Gly Ser Arg Gln His Val Leu Pro Gly Ala Gly Ala		
245	250	255
Gln Trp Gly Glu Glu Ser Gly Pro Gly Arg Ala Pro Gly Ser Pro Ala		
260	265	270
Gly Ala Pro Pro Arg		
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<210> 3883  
 <211> 943  
 <212> DNA  
 <213> Homo sapiens

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<210> 3884  
 <211> 199  
 <212> PRT  
 <213> Homo sapiens

<400> 3884  
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 Lys Ala Arg Arg Arg Thr Arg Ser Ser Ser Ser Ser Ser Ser Ser  
 35 40 45  
 Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser  
 50 55 60  
 Asp Gly Arg Lys Lys Arg Gly Lys Tyr Lys Asp Lys Arg Arg Lys Lys  
 65 70 75 80  
 Lys Lys Lys Arg Lys Lys Leu Lys Lys Lys Gly Lys Glu Lys Ala Glu  
 85 90 95  
 Ala Gln Gln Val Glu Ala Leu Pro Gly Pro Ser Leu Asp Gln Trp His  
 100 105 110  
 Arg Ser Ala Gly Glu Glu Glu Asp Gly Pro Val Leu Thr Asp Glu Gln  
 115 120 125  
 Val Pro Asn Pro Gly His Glu Ala His Asp Gln Gly Gly Trp Asp Ala  
 130 135 140  
 Arg Gln Ser Val Ile Arg Lys Val Val Asp Pro Glu Thr Gly Arg Thr  
 145 150 155 160  
 Arg Leu Ile Lys Gly Asp Gly Glu Val Leu Glu Glu Ile Val Thr Lys  
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<210> 3885  
 <211> 1671  
 <212> DNA  
 <213> Homo sapiens

<400> 3885  
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<210> 3886  
 <211> 277  
 <212> PRT  
 <213> Homo sapiens

<400> 3886  
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 Gly Ala Gly Gly Ser Ile Thr Ser Val Asp Phe Asp Pro Ser Gly Tyr  
 35 40 45  
 Gln Val Leu Ala Ala Thr Tyr Asn Gln Ala Ala Gln Leu Trp Lys Val  
 50 55 60  
 Gly Glu Ala Gln Ser Lys Glu Thr Leu Ser Gly His Lys Asp Lys Val  
 65 70 75 80  
 Thr Ala Ala Lys Phe Lys Leu Thr Arg His Gln Ala Val Thr Gly Ser  
 85 90 95  
 Arg Asp Arg Thr Val Lys Glu Trp Asp Leu Gly Arg Ala Tyr Cys Ser  
 100 105 110  
 Arg Thr Ile Asn Val Leu Ser Tyr Cys Asn Asp Val Val Xaa Trp Gly  
 115 120 125  
 Pro Tyr His His Xaa Ser Gly His Asn Asp Gln Lys Ile Arg Phe Trp  
 130 135 140  
 Asp Ser Xaa Gly Gly Pro Thr Ala Pro Arg Ser Ser Leu Xaa Gln Gly  
 145 150 155 160  
 Arg Val Thr Ser Leu Ser Leu Ser Xaa Arg Pro Thr Xaa His Leu Leu  
 165 170 175  
 Ser Cys Ser Arg Asp Asn Thr Leu Lys Val Ile Asp Leu Arg Val Ser  
 180 185 190  
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 <213> Homo sapiens

<400> 3887

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&lt;210&gt; 3888

&lt;211&gt; 1230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3888

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Ser	Asp	Lys	Glu	Gln	Leu	Arg	Asp	Ile	Ser	Ser	Ile	Gly	Leu	Lys	Thr
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Lys	Arg	Thr	Ile	Ile	Ala	Leu	Gly	His	Leu	Val	Met	Ser	Cys	Gly	Asn				
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Ala Leu Asp Ile Leu Ile Lys Asn Tyr Ser Asp Ser Leu Thr Ala Ala		670
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Glu Leu Ile Gly Leu Val Arg Ser Pro Leu Leu Gln Gly Gly Ala Leu		735
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Ser Ile Arg Leu Leu Ala Leu Leu Ser Leu Gly Glu Val Gly His His		830
	835	840
Ile Asp Leu Ser Gly Gln Leu Glu Leu Lys Ser Val Ile Leu Glu Ala		845
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Phe Ser Ser Pro Ser Glu Glu Val Lys Ser Ala Ala Ser Tyr Ala Leu		860
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Gly Ser Ile Ser Val Gly Asn Leu Pro Glu Tyr Leu Pro Phe Val Leu		880
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Gln Glu Ile Thr Ser Gln Pro Lys Arg Gln Tyr Leu Leu Leu His Ser		895
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Val Glu Asn Ile Trp Ala Leu Leu Lys His Cys Glu Cys Ala Glu		925
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Gly Ser Ser Tyr Ala Arg Ser Ser Val Val Thr Ala Val Lys Phe Thr		975
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&lt;210&gt; 3889

&lt;211&gt; 556

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3889

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&lt;210&gt; 3892

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3892

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		20						25					30		
Ser	Gly	Leu	Phe	Ala	Leu	Cys	Thr	Leu	Asp	Gly	Thr	Leu	Lys	Leu	Met
		35					40					45			
Glu	Glu	Met	Glu	Glu	Ala	Asp	Lys	Leu	Leu	Trp	Ser	Val	Gln	Val	Asp
		50				55					60				
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			85						90					95	
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Phe	Cys	Ala	Gly	Leu	Tyr	Ala	Cys	Lys	Glu	Gly	Arg	Asn	Ser	Pro	Cys
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 <211> 1591  
 <212> DNA  
 <213> Homo sapiens

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<210> 3894

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3894

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Gly	Glu	Ser	Phe	Val	Met	Tyr	Tyr	Lys	Ser	Lys	Glu	Asn	Cys	Val	Val
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65					70					75				80	
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				85					90					95	
Pro	Ala	Glu	Asp	Met	Pro	Phe	Thr	Glu	Ser	Gly	Met	Val	Pro	Asp	Ile
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Leu	Phe	Asn	Pro	His	Gly	Phe	Pro	Ser	Arg	Met	Thr	Ile	Gly	Met	Leu
		115					120						125		
Ile	Glu	Ser	Met	Ala	Gly	Lys	Ser	Ala	Ala	Leu	His	Gly	Leu	Cys	His
	130				135						140				
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Ala Met Arg Asn Arg Lys Tyr Asn Cys Thr Leu Cys Ser Arg Ser Asp					
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Thr Ile Asp Thr Val Ser Val Pro Tyr Val Phe Arg Tyr Phe Val Ala					
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&lt;210&gt; 3895

&lt;211&gt; 1227

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3895

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<210> 3896

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3896

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		20						25					30		
Pro	Glu	Asp	Thr	Pro	Glu	Asn	Thr	Val	Arg	Arg	Gln	Glu	Gln	Pro	Ser
		35					40					45			
Ile	Glu	Ser	Thr	Ser	Pro	Ile	Ser	Arg	Thr	Asp	Glu	Ile	Arg	Lys	Asn
	50					55				60					
Thr	Tyr	Arg	Thr	Leu	Asp	Ser	Leu	Glu	Gln	Thr	Ile	Lys	Gln	Leu	Glu
65				70					75					80	
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Ser	Ser	Asn	Arg	Asp	Ser	Val	Ala	Ser	Ser	Ser	His	Ile	Ala	Gln	Glu
		100						105					110		
Ala	Ser	Pro	Arg	Pro	Leu	Leu	Val	Pro	Asp	Glu	Gly	Pro	Thr	Ala	Leu
		115				120						125			
Glu	Pro	Pro	Thr	Ser	Ile	Pro	Ser	Ala	Ser	Arg	Lys	Gly	Ser	Ser	Gly
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			165					170					175		
Arg	Gln	Tyr	Arg	Gln	Ala	Asn	Gly	Ser	Ala	Lys	Lys	Ser	Gly	Gly	Asp
		180					185						190		
Phe	Lys	Pro	Thr	Ser	Pro	Ser	Leu	Pro	Ala	Ser	Lys	Ile	Pro	Ala	Leu
	195					200						205			
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225				230						235				240	
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		245						250					255		
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		260					265						270		
Thr	Gly	Lys	Gly	His	His	Leu	Ser	Phe	Ser	Pro	Gln	Ser	Gln	Asn	Gly
	275					280					285				
Arg	Ala	Pro	Pro	Pro	Leu	Ser	Phe	Ser	Ser	Ser	Pro	Pro	Ser	Pro	Ala
	290				295						300				
Ser	Ser	Val	Ser	Leu	Asn	Gln	Gly	Ala	Lys	Gly	Thr	Arg	Thr	Ile	His
305				310						315				320	
Thr	Pro	Ser	Leu	Thr	Ser	Tyr	Lys	Ala	Gln	Asn	Gly	Ser	Ser	Ser	Lys
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 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

<400> 3898  
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 His Pro Arg Phe Val His Glu Trp Lys Ala Met Leu Thr Ala Ala Gln  
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 Cys Val Gln Asp Val Ser Glu Thr Pro Val Pro Leu Pro Val Pro Leu  
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 <213> Homo sapiens

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&lt;210&gt; 3900

&lt;211&gt; 249

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3900

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		20					25					30			
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	35					40					45				
Arg	Pro	Ser	Leu	Gly	Arg	Val	Leu	Pro	Gly	Ser	Ser	Val	Leu	Phe	Leu
	50				55				60						
Cys	Asp	Met	Gln	Glu	Lys	Phe	Arg	His	Asn	Ile	Ala	Tyr	Phe	Pro	Gln
65			70						75				80		
Ile	Val	Ser	Val	Ala	Ala	Arg	Met	Leu	Lys	Val	Ala	Arg	Leu	Leu	Glu
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Val	Pro	Val	Met	Leu	Thr	Glu	Gln	Tyr	Pro	Gln	Gly	Leu	Gly	Pro	Thr

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Leu Arg Ser Val Leu Leu Cys Gly Ile Glu Ala Gln Ala Cys Ile Leu
      145      150      155      160
Asn Thr Thr Leu Asp Leu Leu Asp Arg Gly Leu Gln Val His Val Val
      165      170      175
Val Asp Ala Cys Ser Ser Arg Ser Gln Val Asp Arg Leu Val Ala Leu
      180      185      190
Ala Arg Met Arg Gln Ser Gly Ala Phe Leu Ser Thr Ser Glu Gly Leu
      195      200      205
Ile Leu Gln Leu Val Gly Asp Ala Val His Pro Gln Phe Lys Glu Ile
      210      215      220
Gln Lys Leu Ile Lys Glu Pro Ala Pro Asp Ser Gly Leu Leu Gly Leu
      225      230      235      240
Phe Gln Gly Gln Asn Ser Leu Leu His
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&lt;210&gt; 3901

&lt;211&gt; 1287

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3901

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840

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<210> 3902

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3902

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Val	His	Pro	Glu	Met	Pro	Pro	Gly	Val	Arg	Leu	Ser	Arg	Gly	Leu
			20					25					30	Val
Trp	Ala	Ala	Thr	Thr	Ala	Arg	Asn	Ala	Leu	Val	Val	Ser	Phe	Ala
			35				40					45		Ala
Leu	Val	Ala	Tyr	Ser	Phe	Glu	Val	Thr	Gly	Tyr	Gln	Pro	Phe	Ile
			50			55					60			Leu
Thr	Gly	Glu	Thr	Ala	Glu	Gly	Leu	Pro	Pro	Val	Arg	Ile	Pro	Pro
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Ser	Val	Thr	Thr	Ala	Asn	Gly	Thr	Ile	Ser	Phe	Thr	Glu	Met	Val
				85					90				95	Gln
Asp	Met	Gly	Ala	Gly	Leu	Ala	Val	Val	Pro	Leu	Met	Gly	Leu	Glu
			100				105						110	
Ser	Ile	Ala	Val	Ala	Lys	Ala	Phe	Ala	Ser	Gln	Asn	Asn	Tyr	Arg
			115				120					125		Ile
Asp	Ala	Asn	Gln	Glu	Leu	Leu	Ala	Ile	Gly	Leu	Thr	Asn	Met	Leu
			130			135					140			Gly
Ser	Leu	Val	Ser	Ser	Tyr	Pro	Val	Thr	Gly	Ser	Phe	Gly	Arg	Thr
145					150					155				160
Val	Asn	Ala	Gln	Ser	Gly	Val	Cys	Thr	Pro	Ala	Gly	Gly	Leu	Val
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Gly	Val	Leu	Val	Leu	Leu	Ser	Leu	Asp	Tyr	Leu	Thr	Ser	Leu	Phe
			180				185						190	Tyr
Tyr	Ile	Pro	Lys	Ser	Ala	Leu	Ala	Ala	Val	Ile	Ile	Met	Ala	Val
			195				200					205		Ala
Pro	Leu	Phe	Asp	Thr	Lys	Ile	Phe	Arg	Thr	Leu	Trp	Arg	Val	Lys
			210			215					220			Arg
Leu	Asp	Leu	Leu	Pro	Leu	Cys	Val	Thr	Phe	Leu	Leu	Cys	Phe	Trp
225					230					235				240
Val	Gln	Tyr	Gly	Ile	Leu	Ala	Gly	Ala	Leu	Val	Ser	Leu	Leu	Met
														Leu

245 250 255  
 Leu His Ser Ala Ala Arg Pro Glu Thr Lys Val Ser Glu Gly Pro Val  
 260 265 270  
 Leu Val Leu Gln Pro Ala Ser Gly Leu Ser Phe Pro Val Leu Cys Pro  
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<210> 3903  
 <211> 598  
 <212> DNA  
 <213> Homo sapiens

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 480  
 actggcgtea cctgctatgc agccaccca gggcctgtga actcggagct gttcctgcgc  
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<210> 3904  
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 <212> PRT  
 <213> Homo sapiens

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 Val Ile Phe Met Ala Leu Asp Leu Ala Ser Leu Ala Ser Val Arg Ala  
 35 40 45  
 Phe Ala Thr Ala Phe Leu Ser Ser Glu Pro Arg Leu Asp Ile Leu Ile  
 50 55 60  
 His Asn Ala Gly Ile Ser Ser Cys Gly Arg Thr Arg Glu Ala Phe Asn  
 65 70 75 80  
 Leu Leu Leu Arg Val Asn His Ile Gly Pro Phe Leu Leu Thr His Leu

```

      85              90              95
Leu Leu Pro Cys Leu Lys Ala Cys Ala Pro Ser Arg Val Val Val Val
      100              105              110
Ala Ser Ala Ala His Cys Arg Gly Arg Leu Asp Phe Lys Arg Leu Asp
      115              120              125
Arg Pro Val Val Leu Ala Ala Gly Ala Ala Ala Tyr Ala Asp Thr Lys
      130              135              140
Leu Ala Asn Val Leu Phe Ala Arg Glu Leu Ala Asn Gln Leu Glu Ala
145              150              155              160
Thr Gly Val Thr Cys Tyr Ala Ala His Pro Gly Pro Val Asn Ser Glu
      165              170              175
Leu Phe Leu Arg His Val Pro Gly Trp Leu Arg Pro Leu Leu Arg Pro
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Leu Ala Trp Leu Val Pro Arg
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```

<210> 3905  
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 <212> DNA  
 <213> Homo sapiens

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<210> 3906  
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 <212> PRT  
 <213> Homo sapiens

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      20      25      30
Asn Ile Gly Gly Asp Phe Asp Val Ala Thr Gly Gln Phe Arg Cys Arg
      35      40      45
Val Pro Gly Ala Tyr Phe Phe Ser Phe Thr Ala Gly Lys Ala Pro His
      50      55      60
Lys Ser Pro Ser Val Met Leu Val Arg Asn Arg Asp Glu Val Gln Ala
65      70      75      80
Leu Ala Phe Asp Glu Gln Arg Arg Pro Gly Ala Arg Arg Ala Ala Ser

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	85		90		95
Gln Ser Ala Met Leu Gln Leu Asp Tyr Gly Asp Thr Val Trp Leu Arg					
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Leu His Gly Ala Pro Gln Tyr Ala Leu Gly Ala					
	115		120		

&lt;210&gt; 3907

&lt;211&gt; 4474

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3907

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&lt;210&gt; 3908

&lt;211&gt; 1373

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3908

Ala Gly Cys Gly Gly Leu Ala Arg Leu Ser Val Pro Cys Trp Arg Ile  
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 Trp Pro Gln Arg Ala Ala Lys Ile Ala Gly Pro Gly Arg Lys Arg Arg  
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 Ser Pro Asp Pro Asp Ala Val Ala Asp Pro Gly Ala Leu Trp Leu Ser  
 35 40 45  
 Thr Lys Arg Leu Lys Met Ser Gly Gly Ala Ser Ala Thr Gly Pro Arg  
 50 55 60  
 Arg Gly Pro Pro Gly Leu Glu Asp Thr Thr Ser Lys Lys Lys Gln Lys  
 65 70 75 80  
 Asp Arg Ala Asn Gln Glu Ser Lys Asp Gly Asp Pro Arg Lys Glu Thr  
 85 90 95  
 Gly Ser Arg Tyr Val Ala Gln Ala Gly Leu Glu Pro Leu Ala Ser Gly  
 100 105 110  
 Asp Pro Ser Ala Ser Ala Ser His Ala Ala Gly Ile Thr Gly Ser Arg  
 115 120 125  
 His Arg Thr Arg Leu Phe Phe Pro Ser Ser Ser Gly Ser Ala Ser Thr  
 130 135 140  
 Pro Gln Glu Glu Gln Thr Lys Glu Gly Ala Cys Glu Asp Pro His Asp  
 145 150 155 160  
 Leu Leu Ala Thr Pro Thr Pro Glu Leu Leu Leu Asp Trp Arg Gln Ser  
 165 170 175  
 Ala Glu Glu Val Ile Val Lys Leu Arg Val Gly Val Gly Pro Leu Gln  
 180 185 190  
 Leu Glu Asp Val Asp Ala Ala Phe Thr Asp Thr Asp Cys Val Val Arg  
 195 200 205  
 Phe Ala Gly Gly Gln Gln Trp Gly Gly Val Phe Tyr Ala Glu Ile Lys  
 210 215 220  
 Ser Ser Cys Ala Lys Val Gln Thr Arg Lys Gly Ser Leu Leu His Leu  
 225 230 235 240  
 Thr Leu Pro Lys Lys Val Pro Met Leu Thr Trp Pro Ser Leu Leu Val  
 245 250 255  
 Glu Ala Asp Glu Gln Leu Cys Ile Pro Pro Leu Asn Ser Gln Thr Cys  
 260 265 270  
 Leu Leu Gly Ser Glu Glu Asn Leu Ala Pro Leu Ala Gly Glu Lys Ala  
 275 280 285  
 Val Pro Pro Gly Asn Asp Pro Val Ser Pro Ala Met Val Arg Ser Arg  
 290 295 300  
 Asn Pro Gly Lys Asp Asp Cys Ala Lys Glu Glu Met Ala Val Ala Ala  
 305 310 315 320  
 Asp Ala Ala Thr Leu Val Asp Gly Lys Glu Pro Glu Ser Met Val Asn  
 325 330 335  
 Leu Ala Phe Val Lys Asn Asp Ser Tyr Glu Lys Gly Pro Asp Ser Val  
 340 345 350  
 Val Val His Val Tyr Val Lys Glu Ile Cys Arg Asp Thr Ser Arg Val  
 355 360 365  
 Leu Phe Arg Glu Gln Asp Phe Thr Leu Ile Phe Gln Thr Arg Asp Gly

370		375		380
Asn Phe Leu Arg Leu His Pro Gly Cys Gly Pro His Thr Thr Phe Arg				
385		390		395
Trp Gln Val Lys Leu Arg Asn Leu Ile Glu Pro Glu Gln Cys Thr Phe				400
	405		410	415
Cys Phe Thr Ala Ser Arg Ile Asp Ile Cys Leu Arg Lys Arg Gln Ser				
	420		425	430
Gln Arg Trp Gly Gly Leu Glu Ala Pro Ala Ala Arg Val Gly Gly Ala				
	435		440	445
Lys Val Ala Val Pro Thr Gly Pro Thr Pro Leu Asp Ser Thr Pro Pro				
	450		455	460
Gly Gly Ala Pro His Pro Leu Thr Gly Gln Glu Glu Ala Arg Ala Val				
	465		470	475
Glu Lys Asp Lys Ser Lys Ala Arg Ser Glu Asp Thr Gly Leu Asp Ser				
	485		490	495
Val Ala Thr Arg Thr Pro Met Glu His Val Thr Pro Lys Pro Glu Thr				
	500		505	510
His Leu Ala Ser Pro Lys Pro Thr Cys Met Val Pro Pro Met Pro His				
	515		520	525
Ser Pro Val Ser Gly Asp Ser Val Glu Glu Glu Glu Glu Glu Lys				
	530		535	540
Lys Val Cys Leu Pro Gly Phe Thr Gly Leu Val Asn Leu Gly Asn Thr				
	545		550	555
Cys Phe Met Asn Ser Val Ile Gln Ser Leu Ser Asn Thr Arg Glu Leu				
	565		570	575
Arg Asp Phe Phe His Asp Arg Ser Phe Glu Ala Glu Ile Asn Tyr Asn				
	580		585	590
Asn Pro Leu Gly Thr Gly Gly Arg Leu Ala Ile Gly Phe Ala Val Leu				
	595		600	605
Leu Arg Ala Leu Trp Lys Gly Thr His His Ala Phe Gln Pro Ser Lys				
	610		615	620
Leu Lys Ala Ile Val Ala Ser Lys Ala Ser Gln Phe Thr Gly Tyr Ala				
	625		630	635
Gln His Asp Ala Gln Glu Phe Met Ala Phe Leu Leu Asp Gly Leu His				
	645		650	655
Glu Asp Leu Asn Arg Ile Gln Asn Lys Pro Tyr Thr Glu Thr Val Asp				
	660		665	670
Ser Asp Gly Arg Pro Asp Glu Val Val Ala Glu Glu Ala Trp Gln Arg				
	675		680	685
His Lys Met Arg Asn Asp Ser Phe Ile Val Asp Leu Phe Gln Gly Gln				
	690		695	700
Tyr Lys Ser Lys Leu Val Cys Pro Val Cys Ala Lys Val Ser Ile Thr				
	705		710	715
Phe Asp Pro Phe Leu Tyr Leu Pro Val Pro Leu Pro Gln Lys Gln Lys				
	725		730	735
Val Leu Pro Val Phe Tyr Phe Ala Arg Glu Pro His Ser Lys Pro Ile				
	740		745	750
Lys Phe Leu Val Ser Val Ser Lys Glu Asn Ser Thr Ala Ser Glu Val				
	755		760	765
Leu Asp Ser Leu Ser Gln Ser Val His Val Lys Pro Glu Asn Leu Arg				
	770		775	780
Leu Ala Glu Val Ile Lys Asn Arg Phe His Arg Val Phe Leu Pro Ser				
	785		790	795
His Ser Leu Asp Thr Val Ser Pro Ser Asp Thr Leu Leu Cys Phe Glu				800

										805					810					815				
Leu	Leu	Ser	Ser	Glu	Leu	Ala	Lys	Glu	Arg	Val	Val	Val	Leu	Glu	Val									
				820							825		830											
Gln	Gln	Arg	Pro	Gln	Val	Pro	Ser	Val	Pro	Ile	Ser	Lys	Cys	Ala	Ala									
				835							840		845											
Cys	Gln	Arg	Lys	Gln	Gln	Ser	Glu	Asp	Glu	Lys	Leu	Lys	Arg	Cys	Thr									
				850							855		860											
Arg	Cys	Tyr	Arg	Val	Gly	Tyr	Cys	Asn	Gln	Leu	Cys	Gln	Lys	Thr	His									
				865							870		875											
Trp	Pro	Asp	His	Lys	Gly	Leu	Cys	Arg	Pro	Glu	Asn	Ile	Gly	Tyr	Pro									
				885							890		895											
Phe	Leu	Val	Ser	Val	Pro	Ala	Ser	Arg	Leu	Thr	Tyr	Ala	Arg	Leu	Ala									
				900							905		910											
Gln	Leu	Leu	Glu	Gly	Tyr	Ala	Arg	Tyr	Ser	Val	Ser	Val	Phe	Gln	Pro									
				915							920		925											
Pro	Phe	Gln	Pro	Gly	Arg	Met	Ala	Leu	Glu	Ser	Gln	Ser	Pro	Gly	Cys									
				930							935		940											
Thr	Thr	Leu	Leu	Ser	Thr	Gly	Ser	Leu	Glu	Ala	Gly	Asp	Ser	Glu	Arg									
				945							950		955											
Asp	Pro	Ile	Gln	Pro	Pro	Glu	Leu	Gln	Leu	Val	Thr	Pro	Met	Ala	Glu									
				965							970		975											
Gly	Asp	Thr	Gly	Leu	Pro	Arg	Val	Trp	Ala	Ala	Pro	Asp	Arg	Gly	Pro									
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Val	Pro	Ser	Thr	Ser	Gly	Ile	Ser	Ser	Glu	Met	Leu	Ala	Ser	Gly	Pro									
				995							1000		1005											
Ile	Glu	Val	Gly	Ser	Leu	Pro	Ala	Gly	Glu	Arg	Val	Ser	Arg	Pro	Glu									
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Ala	Ala	Val	Pro	Gly	Tyr	Gln	His	Pro	Ser	Glu	Ala	Met	Asn	Ala	His									
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Thr	Pro	Gln	Phe	Phe	Ile	Tyr	Lys	Ile	Asp	Ser	Ser	Asn	Arg	Glu	Gln									
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Arg	Leu	Glu	Asp	Lys	Gly	Asp	Thr	Pro	Leu	Glu	Leu	Gly	Asp	Asp	Cys									
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Ser	Leu	Ala	Leu	Val	Trp	Arg	Asn	Asn	Glu	Arg	Leu	Gln	Glu	Phe	Val									
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Leu	Val	Ala	Ser	Lys	Glu	Leu	Glu	Cys	Ala	Glu	Asp	Pro	Gly	Ser	Ala									
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Thr Gly Glu His Cys Glu Val Ser Ala Arg Ser Gly Arg Cys Thr Pro		795
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Gly Val Cys Lys Asn Gly Gly Thr Cys Val Asn Leu Leu Val Gly Gly		810
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